

U. S. DEPARTMENT OF AGRICULTURE

BUREAU OF PLANT INDUSTRY

FIELD NOTES

FORAGE CROP INVESTIGATIONS

FIELD NOTES.

INSTRUCTIONS.

In case of a series of row or plat tests it is desirable to have all the constant conditions recorded for future reference. This can be done on the blank pages in the front of the book for all points not covered by the topic headings. In case several sets of experiments are recorded in a single book the conditions governing each may be given by filling in the outlines provided. (See pp. 7-11.) The blank pages may be used for any additional data which seem desirable, such as the high, low, and mean temperatures, rainfall, and date of the last killing frost in the spring and of the first killing frost in the fall. At the back of the book are blank pages for convenience in making field calculations and temporary notations. Row numbers should be listed in the order that they occur in the field. Records should be made in rate per cent wherever possible and in such manner that the better the variety or strain the higher the percentage recorded. Rules given under "Explanation of headings and abbreviations used in taking field notes in forage-crop investigations" should be followed, in order that the notes on any given crop may be uniform for all the stations.

EXPLANATION OF HEADINGS AND ABBREVIATIONS USED IN TAKING FIELD NOTES IN FORAGE-CROP INVESTIGATIONS.

SIZE OF PLAT.—Stated in fractions of an acre, as $\frac{1}{8}$, $\frac{1}{16}$, etc., or, if nursery rows, length of the row in feet.

RATE OF SEEDING.—Pounds per acre.

STAND.—Given in percentages or number of plants in the row.

DATE.—Given in figures, as 9-15 (September 15).

UNIFORMITY.—Given in percentages.

VIGOR.—Strength or abundance of growth: *p*=poor; *f*=fair; *g*=good; *ex*=excellent.

CONDITION.—If the crop is biennial or perennial, give percentages showing what portion has survived the winter.

FOLIAGE COLOR.—Indicate the shade of green as follows: *g*=green; *l g*=light green; *d g*=dark green; *y g*=yellowish green; *g g*=grayish green; *p g*=purplish green. The superlative degree of any of these colors may be indicated by placing *v* before the color abbreviations, as follows: *v l g*=very light green.

HABIT OF GROWTH.—Described by the following terms: *e*=erect; *s e*=suberect; *d*=decumbent (prostrate, tip ascending); *p*=procumbent (trailing); *v*=vining; *b*=bushy.

STEMS PER PLANT.—Average number of stems produced from one seed, as 7-8.

MEASUREMENTS.—Given in inches unless otherwise indicated.

DISEASE RESISTANCE.—Give the percentage of noninfection; best determined by estimating the percentage of infection and subtracting this from 100.

DROUGHT RESISTANCE.—Indicate the comparative vigor of plants under conditions of drought, as follows: *p*=poor; *f*=fair; *g*=good; *ex*=excellent.

LODGING.—Described as *none*, *little*, *medium*, *much*.

SHATTERING.—Described as *none*, *little*, *medium*, *much*.

QUALITY.—Indicated as follows: *p*=poor; *f*=fair; *g*=good; *ex*=excellent.

ABBREVIATIONS.

GENERAL.—*v*=very; *med*=medium; *p*=poor; *g*=good; *ex*=excellent (indicates an unusually high degree, seldom occurring); *l*=little; *m*=much; *o*=none or nothing; *lg*=long; *s*=short; *sm*=small; *lrg*=large; *ab*=abundant; *few*=few; *cs*=coarse; *sl*=slender.

COLOR.—*v*=violet; *i*=indigo; *b*=blue; *g*=green; *y*=yellow; *o*=orange; *r*=red; *pur*=purple; *pk*=pink; *l*=light (used before a color); *d*=dark (used before a color).

SHAPE.—*ov*=oval; *rd*=round; *obl*=oblong; *lin*=linear; *obo*=obovate; *cor*=cordate; *cyl*=cylindrical; *elip*=elliptical.

Test of _____, 19

Object _____

Location _____

Kind of soil _____

Character of field _____

Previous crop _____

Preparation of seed bed _____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Seeding method _____

Test of _____, 19

Object _____

Location _____

Kind of soil _____

Character of field _____

Previous crop _____

Preparation of seed bed _____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Seeding method _____

----- *Test of* -----, 19-----

Object-----

Location-----

Kind of soil -----

Character of field-----

Previous crop-----

Preparation of seed bed-----

1. -----

2. -----

3. -----

4. -----

5. -----

6. -----

Seeding method-----

----- *Test of* -----, 19-----

Object-----

Location-----

Kind of soil -----

Character of field-----

Previous crop-----

Preparation of seed bed-----

1. -----

2. -----

3. -----

4. -----

5. -----

6. -----

Seeding method-----

Test of _____, 19____

Object_____

Location_____

Kind of soil _____

Character of field_____

Previous crop_____

Preparation of seed bed_____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Seeding method_____

Test of _____, 19____

Object_____

Location_____

Kind of soil _____

Character of field_____

Previous crop_____

Preparation of seed bed_____

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

Seeding method_____

Test of

, 19

Object

Location

Kind of soil

Character of field

Previous crop

Preparation of seed bed

1.

2.

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Seeding method

Test of

, 19

Object

Location

Kind of soil

Character of field

Previous crop

Preparation of seed bed

1.

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Seeding method

Object-----

Location-----

Kind of soil-----

Character of field-----

Previous crop-----

Preparation of seed bed-----

1. -----

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Seeding method-----

Object-----

Location-----

Kind of soil-----

Character of field-----

Previous crop-----

Preparation of seed bed-----

1. -----

2. -----

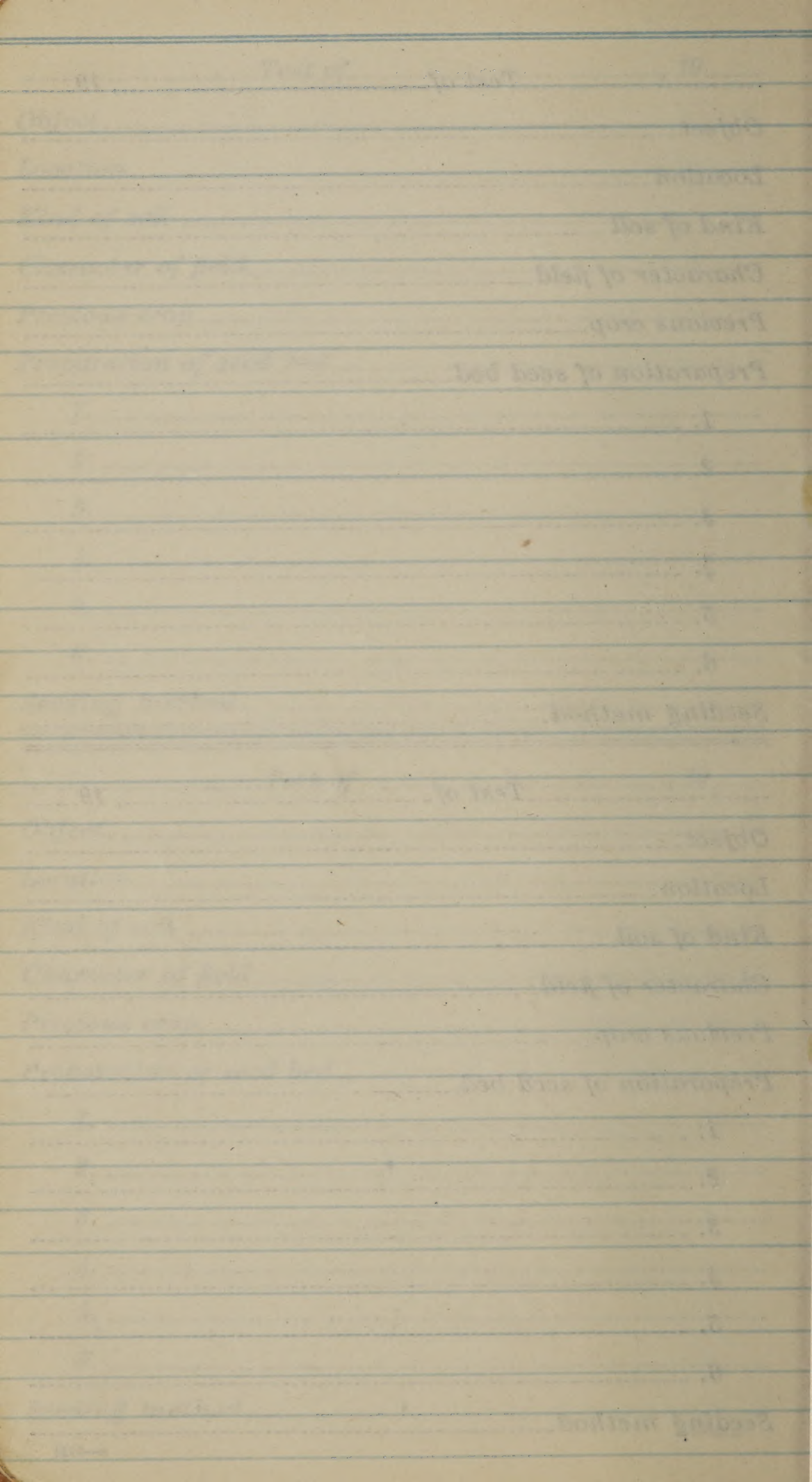
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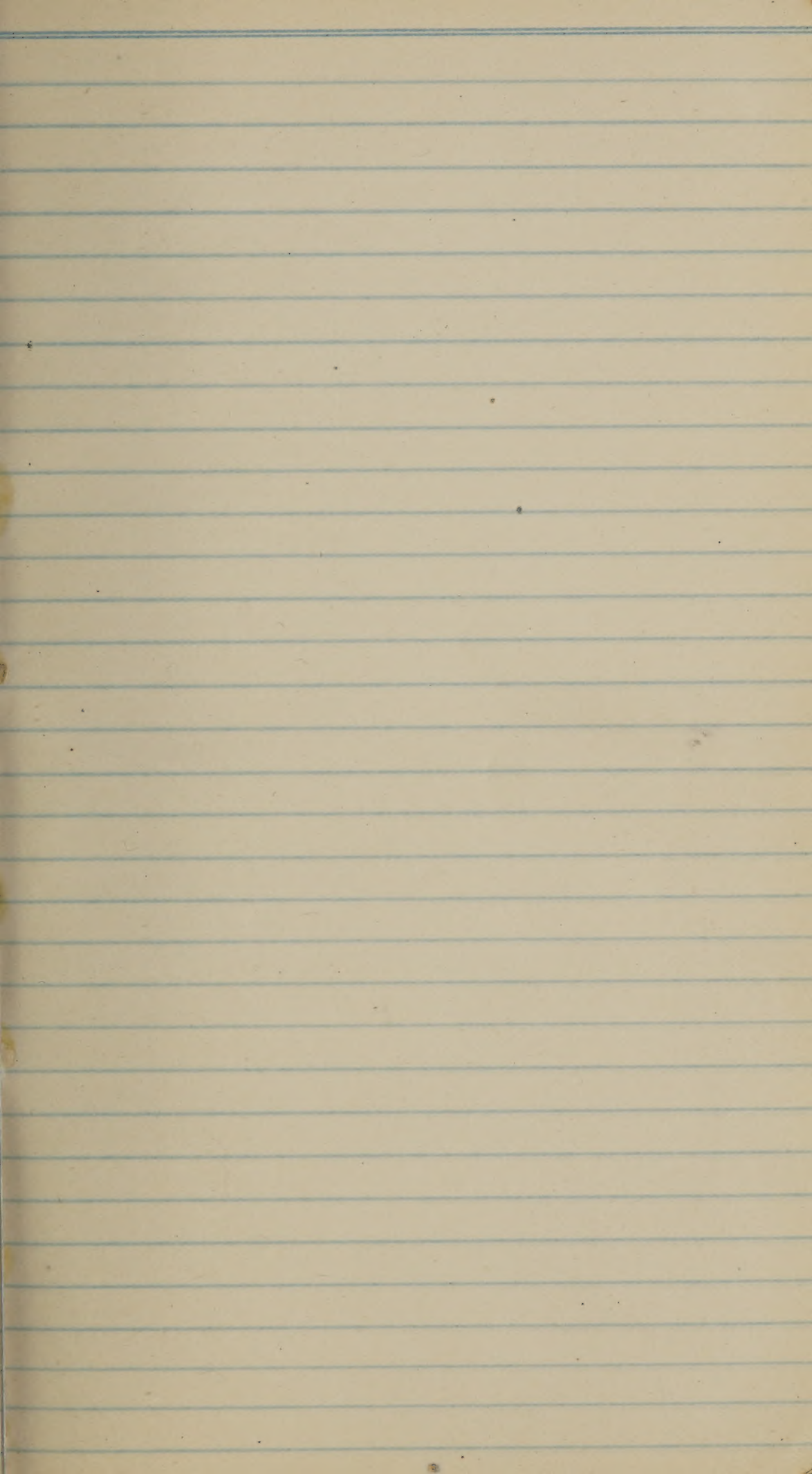
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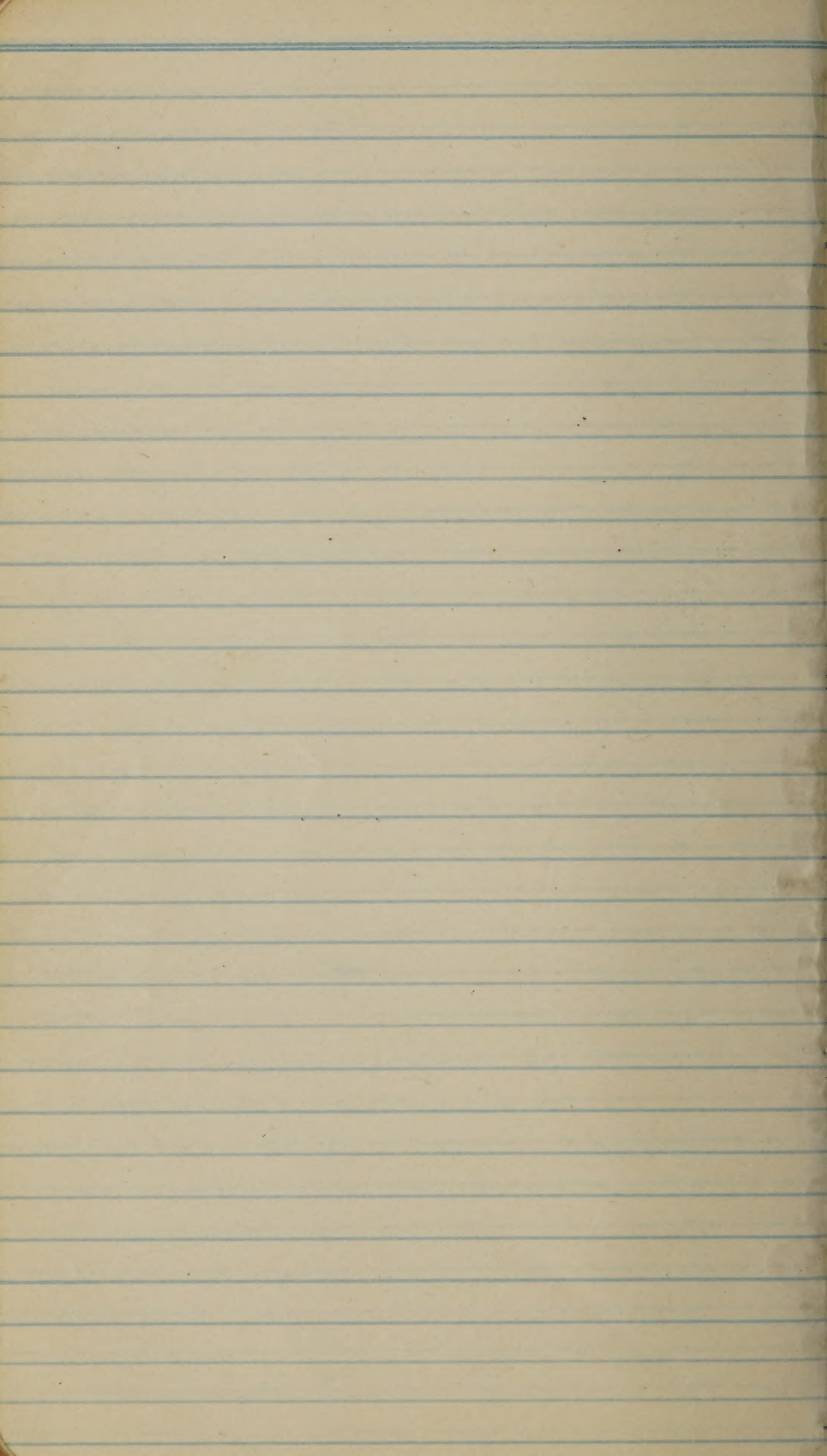
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Seeding method-----







Variety	No.	Date intro- duced	Source
Mammoth ✓			Same as Mammoth Yellow
Mammoth Yellow	17280	1882	Not known
Mammoth Brown	02947		Not known
Manchu	30593	1911	Ninguta, Manchuria
Mandarin	36653	1913	Pek tuan lin tza, North Manchuria (Heilung Chiang)
Manhattan	17277		Tokio, Japan.
McQueen's Extra High Yields	03232		
Medium Black			Same as Buckshot
Medium Brown			
Medium Early Black			Same as Buckshot
Medium Green			Same as Guelph
Medium Early Yellow			
Medium Yellow	17269	1901	Central China
Merko ✓	20412	1906	Merkochofka, Siberia.
Meyer ✓	17852	1906	Peking, China.
Mikado ✓		1905	Selected from Medium Yellow by A. A. Parsons, Plainfield, Ind.
Mongol ✓		1901	Central China.
Morgan	22633	1908	Shiehling, China
Morse	19186	1906	Nerowwang, Manchuria.
Mitsoy ✓	03208		Selection by the Minn. Exp. Sta.

Plant				Flowers		Pubescence		
Height in	Habit	Branches	Leaves persist	Mature	Color	Season	Color	Am't.
	E	Ma	no	145	W	85-90	G	
	E	Ma	no	135	P	65-70	T	
24-30	E	Ma	no	115	W.P	35-40	T	Me
18-24	E	Ma	no	100	P	35-40	G	Me
16-22	E	Me	no	105	W	40-45	G	Me
				113	P		T	
				115	P		T	
36-42	E	Ma	yes	120	P.W	40-45	T, G	Me
36-36	E.T	Ma	no	130	P	50-55	T	Me
	E	Ma.	no.	120	P	45-50	T	Me
	E	Ma	no	115	P	45-50	T	Me
36-42	E.T	Ma	no	150	P	85-90	T	Me
30-36	E	Ma	no	125	P.W	50-55	G	Me
	E	Ma		100	P	35-45	T	

Seed

Color	Long mm.	wide mm.	thick mm.	Color hilum	Color germ	Edible value of oil
S. Y.						
straw yellow	7-8	6-7	5-6	Ta	Y	
russel	8-9	7-8	5-6	Ru	Y	
straw yellow	8-9	6-7	6-7	bl.	Y	
straw yellow	7-8	6-7	5-6	pale	Y	
straw yellow	8-8½				Y	
straw yellow					Y	
Black					Y	
Straw yellow						
Straw yellow	7-7½				Y	
olive brown	8-9	5-6	4-5	O. Br.	Y	
	8½-9				Y	
straw yellow	7-8	6-7	6-7	C. Br.	Y	
Straw yellow	6-7	5-6	4-5	Ta. to C. Br.	Y	
olive yellow	5½-6				Y	
olive yellow	7-8	7-8	5-6	ta	Y	
straw yellow	6-7	5-6	4-5	C. br.	Y	

354

	<u>Pods</u>					
Color	Long mm.	wide mm.	thick mm.	No. of seed	Shatter	Shape
	1 $\frac{1}{2}$ -1 $\frac{3}{4}$			<u>2-3</u>	Mo	T
straw	35-45	9-10	7-8	<u>2-3</u>	L	T
tawny	40-50	9-11	6-7	2-3	L	
tawny	45-55	10-11	7-8	<u>2-3-4</u>	L	T
gray	40-50	9-10	7-8	<u>2-3</u>	L	T
	1 $\frac{3}{4}$ -2			<u>2-3</u>	L	T
	1 $\frac{1}{4}$ -1 $\frac{1}{2}$			<u>2-3</u>	L	T
	1 $\frac{1}{2}$ -1 $\frac{3}{4}$			<u>2-3</u>	Mo.	T
	1 $\frac{1}{2}$ -1 $\frac{3}{4}$			<u>2-3</u>	L	G
	2-2 $\frac{1}{4}$			<u>2-3-4</u>	L	T
tawny	35-45	8-9	8-9	2-3	L	T
tawny	35-45	8-9	5-6	<u>2-3</u>	L	T
	1 $\frac{1}{4}$ -1 $\frac{1}{2}$			<u>2-3</u>	L	C
	1 $\frac{3}{4}$ -2 $\frac{1}{4}$			<u>2-3</u>	Mo	T
tawny	35-45	7-9	6-7	<u>2-3</u>	L	T

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Variety	No.	Date intro- duced	Source
Medium Ita Name	8423		Same as Tokio
Mammoth Black	03675		Same as Shanghai
Manchuria ✓ 28050 - S.D.	02756, 03577 03755		
Minn. Ped. #2	03801		
Medium Early Green	01709		Same as Guelph
Manchurian	03609		
Manchuria Brown			
Medium	01327		
Michigan Green			
Minn. #166	03591		
Minn. #167	03580		
Minnsoya	03585		
Mukden			
Mamredo			
Mansoy			

Plant

Flowers

Pubescence

Height
in.

Habit

Branches

Leaves
persist

Mature
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Color

Season

Color

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Seed

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Pods.

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Pods

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Variety	No.	Date intro- duced	Source
Ogemaw	17258	1902	Cross between Early Bl. and 24. Br. by E. E. Evans. Mich.
Ohio No. 7491 ✓	02690		
Ohio No. 9016 ✓	02693		
Ohio No. 9035 ✓	03614, 03699 03736, 03831		
Ohio No. 9100 ✓	02695		
Ohio No. 9001 ✓	01759 02692		
Ohio No. 7469 ✓	02691		
Ohio No. 9110 ✓	02697		
Okute ✓	19986	1907	Boehmer & Co. Yokohama, Japan.
Otootari ✓	02417, 03233 03825	1911	Prof. C. K. McClelland, Ga. Exp. Sta. from Hawaii & Formosa
Oyachi	02705		
Ozark	37272		

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Seed

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Seed

Per Cent oil	Per Cent protein	No. of seed to bu.	Wt. of bu. lbs.
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17.5	34.2	188,000	
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21.4		74,880	
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17.7		368,600	
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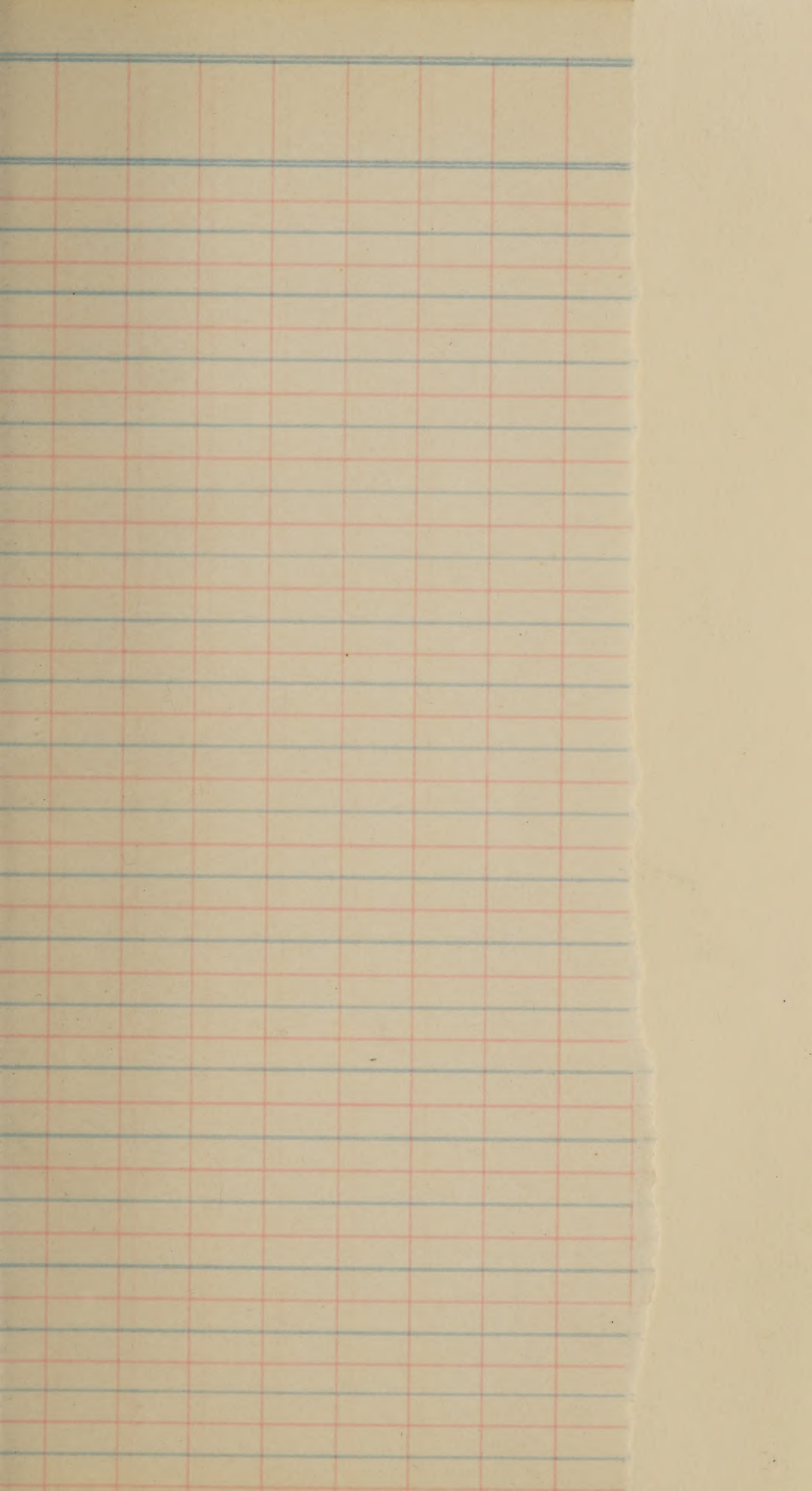
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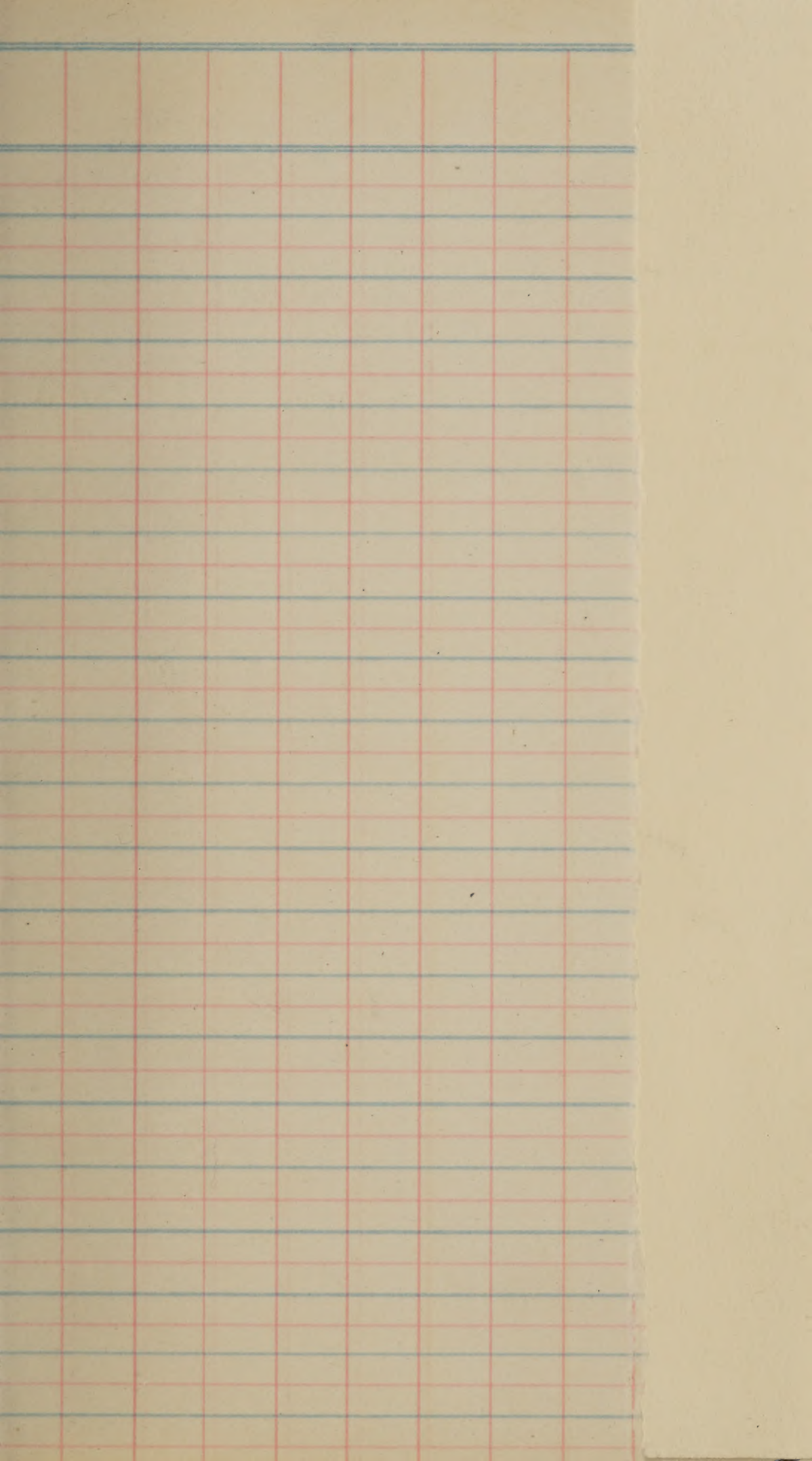
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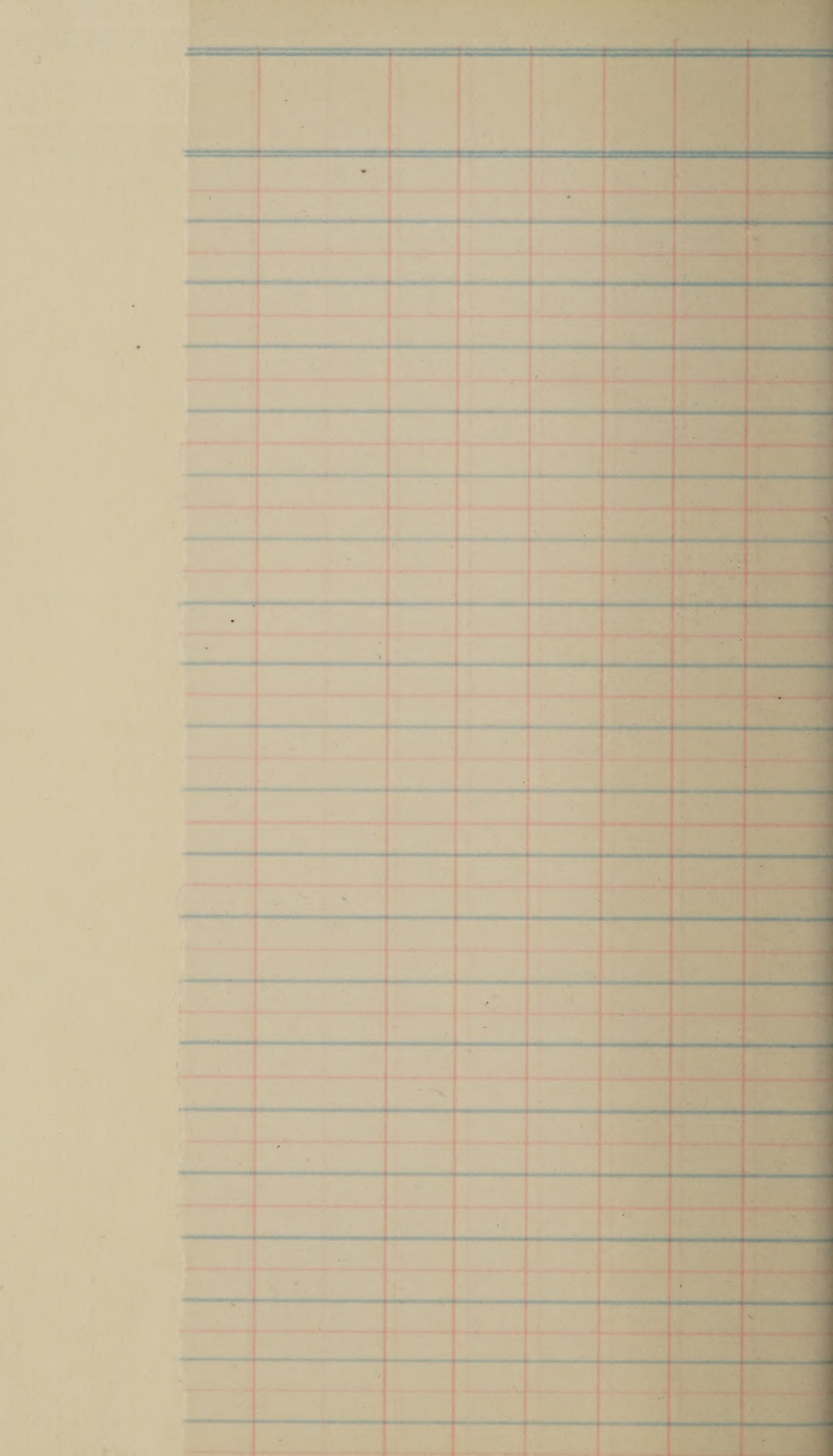
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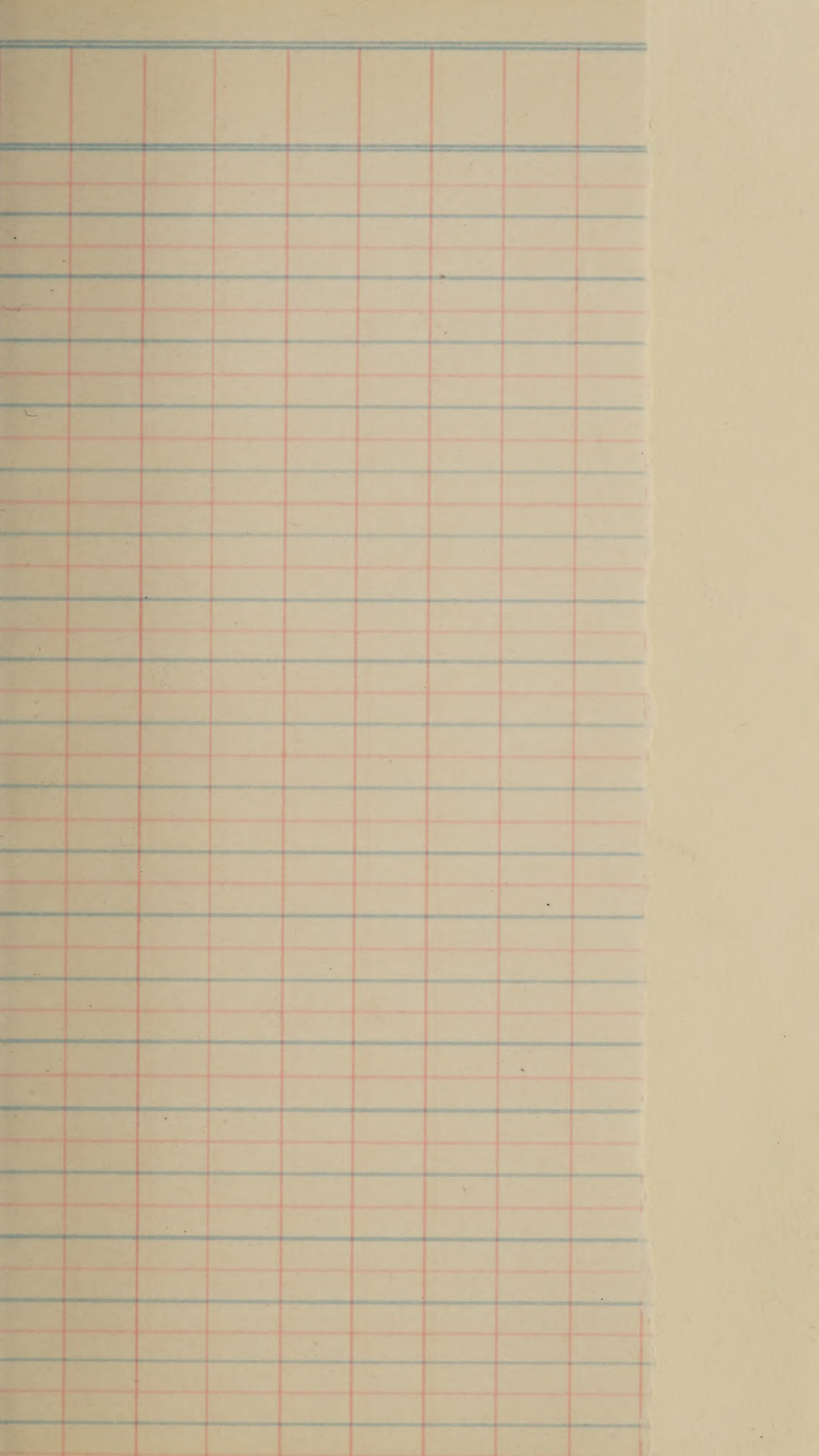
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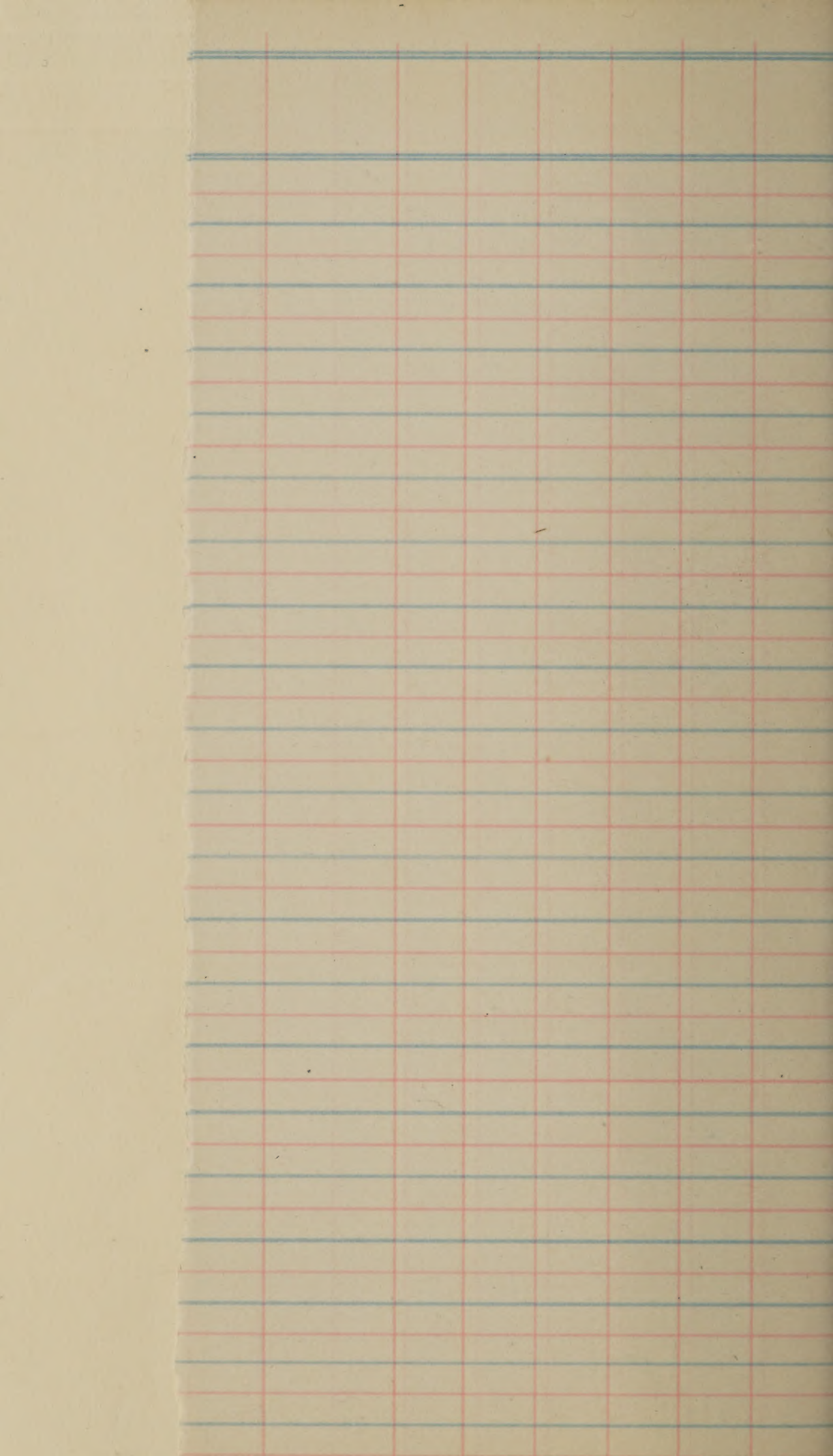
Variety

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Variety	No.	Date intro- duced	Source
Sable ✓	01535, 01713 03712, 03829		Wingard Co., Mechanicsburg Miss.
Samarow ✓	17260	1901	J. M. Thorburn & Co. N. Y. City
Sedo ✓	23229	1908	Tientsin, China
Shanghai ✓	14952	1905	Shanghai, China.
Sherwood ✓	17862	1906	Tientsin, China
Shingto ✓	21079	1907	Tieling, Manchuria
Shinto			
Shiro-Tairyu ✓	02701		
Southern			Same as Mammoth Yellow
Stuart ✓	22644	1908	Hangchow, China
Swan ✓	22379	1908	Canton, China.
Soysoa ✓	03209		
Sooty ✓	16790		
Shiro-Shoryu ✓	02701		
Saskatoon ✓	02108		
Southern Medium Green	03597		
Stone's Ensilage	03598		
Shiro-Paidzu ✓	02776		
Small Yellow ✓	01338		
Southern Prolific	37250		Named by G. E. S. Athens

Plant				Flowers		Pubescence	
Height in.	Habit	Branches	Leaves persist	Mature Das.	Color	Season das.	Color Amt.
18-24	E	Me	yes	110	P	40-45	G
				115	P		T
30-36	E	Ma	no	145	P; W	70-75	T Me
30-36	E	Ma	no	120	P; W	50-55	G Me
20-24	E	Ma	no	115	P; W	45-50	T Me
					P		G
36-42	E	Ma	no	150	P	85-90	G Me
				120	P; W		G
				97	P		T
				97	W		G

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Color	Long mm.	wide mm.	thick mm.	Color hilum	Color germ	Iodine value oil
Black					Y	
Green	7'-7½'				Gr	
	9-10				Y	
Black	8-8½				Gr.Y	
Straw yellow	7-7½				Y	
Olive yellow	6½-7				Y	
Straw yellow					Y	
	7					
	7-7½				Y	
	6½-7					
Black (dull)						

Seed

Per cent oil	Per cent protein	No. of seed to bu.	Wt. of seed /bs.
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20.8	34.7	227,520	
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18.4	35.5	163,200	
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18.8	37.3	187,200	
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18.6	35.2	119,040	
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18.2	36.4		
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14.3			
------	--	--	--

17.7	39.6		
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Pods

Color	Long mm.	wide mm.	thick mm.	No. of Seed	Shatter	Shape
	$1\frac{1}{2}$ - $1\frac{3}{4}$			<u>2-3</u>	L	T
	$1\frac{3}{4}$ - $2\frac{1}{4}$				L	T
	$2\frac{1}{4}$ - $2\frac{1}{2}$			<u>2-3</u>	L	T
	$1\frac{1}{2}$ - $1\frac{3}{4}$			<u>2-3</u>	L	T
	$1\frac{1}{2}$ - $1\frac{3}{4}$				L	T
	$1\frac{1}{2}$ - $1\frac{3}{4}$			<u>2-3</u>	L	T
	$1\frac{3}{4}$ -2			<u>2-3</u>	L	G
	$1\frac{1}{2}$ - $1\frac{3}{4}$				Mo	T
	$1\frac{1}{2}$ - $1\frac{3}{4}$			<u>2-3</u>	L	T
	$1\frac{1}{2}$ - $1\frac{3}{4}$			<u>2-3</u>	L	T

[Faint, illegible handwriting visible in the top margin, possibly including the words "Plants" and "Fishes"]

Variety

No

Date
introduced

Source

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Flowers

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Variety	No.	Date introduced	Source
Taka ✓	21999	1907	Boshan, China.
Tarteel	03223		Same as Shanghai
Tarteel Black	02106, 03152 03717		Same as Shanghai.
Tasting ✓	20854	1907	Harbin, Manchuria
Tokio ✓	17264 (8424)	1901	Tokio, Japan
Tomonaga ✓	03212		
Trenton ✓	24610	1904	Selected from Mammoth by S. J. Leavell, Trenton, Ky.
Tsurumoko	03237		
Tarteel Brown			
Tanloxi			

Height m.	Habit	Branches	Leaves persist	Mature Das.	Flowers	Pubescence
					Color	Season das.
			No	125	P.W	T.G
E	Ma	no		140	P;W	140 T
				105	P.W	T
E	Ma	no		145	P.W	70-75 G
				100	W	G
				145	W	G
				115	P	G

Seed						
Color	Long mm.	wide mm.	thick mm.	Color hilum	Color germ	Iodine value of oil
	9-10				Y	
Black						
Black	9-10	7-8	6-7	bl.	G; Y.	
	7½-8				G.	
olive yellow	7-8	6-7	5-6	pale	Y	
	6½-7				Y	
Black						

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Seed

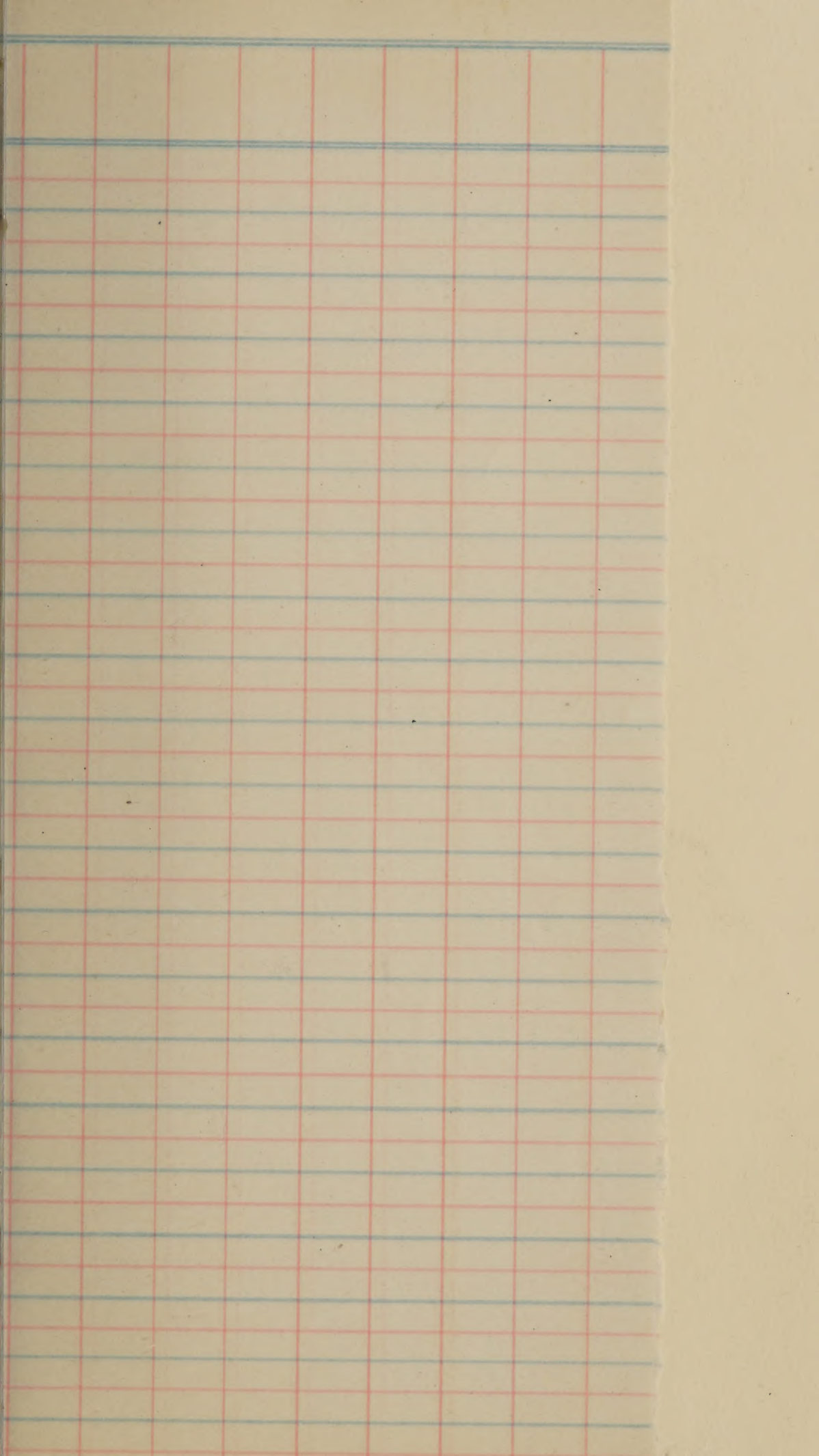
Per cent oil	Per cent protein	No. of Seed to bu.	Wt. of bu.	
		132,480	165.	
18.6		163,200		
		163,200		
18.4	35.0	134,400		

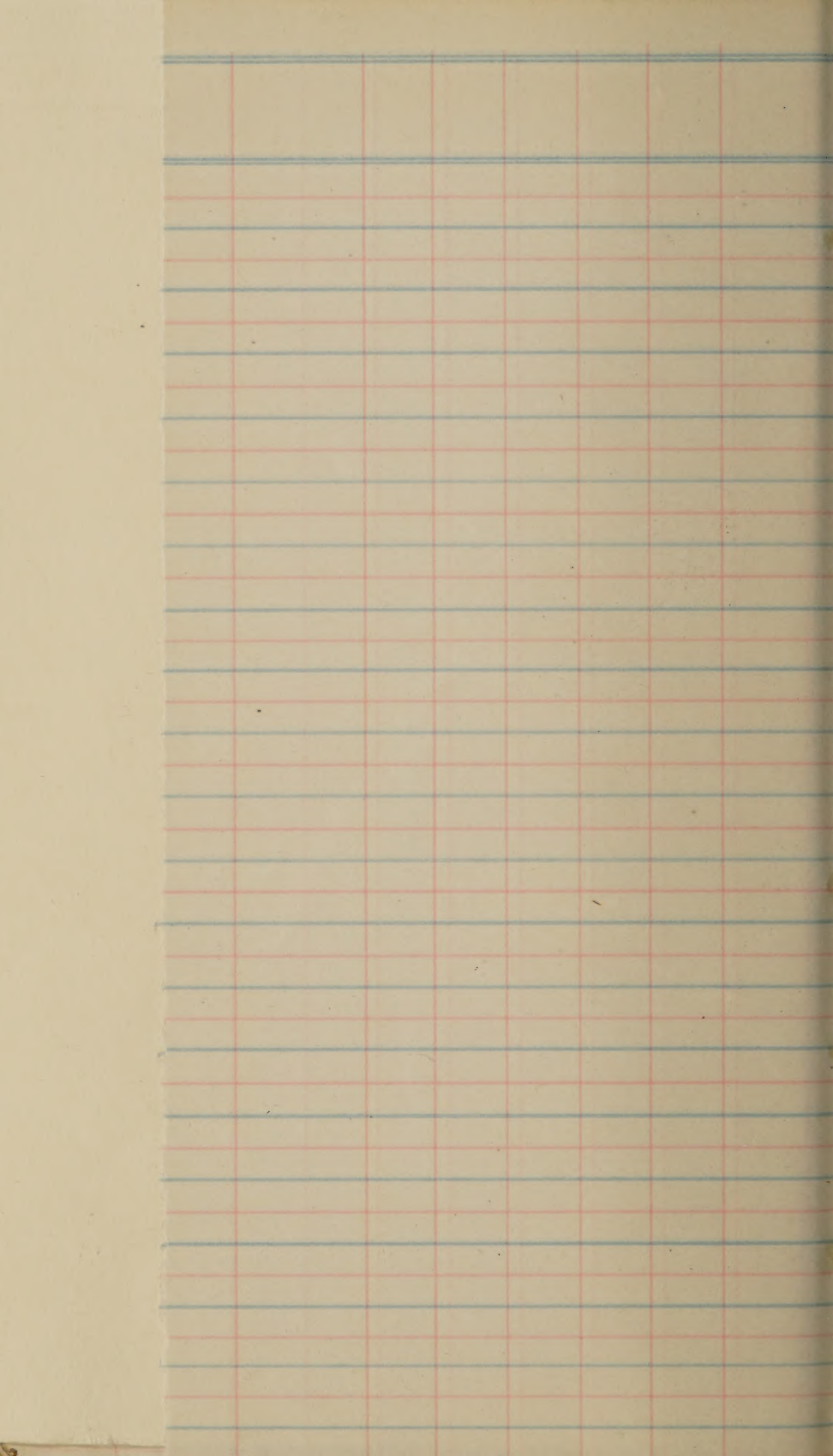
Pods

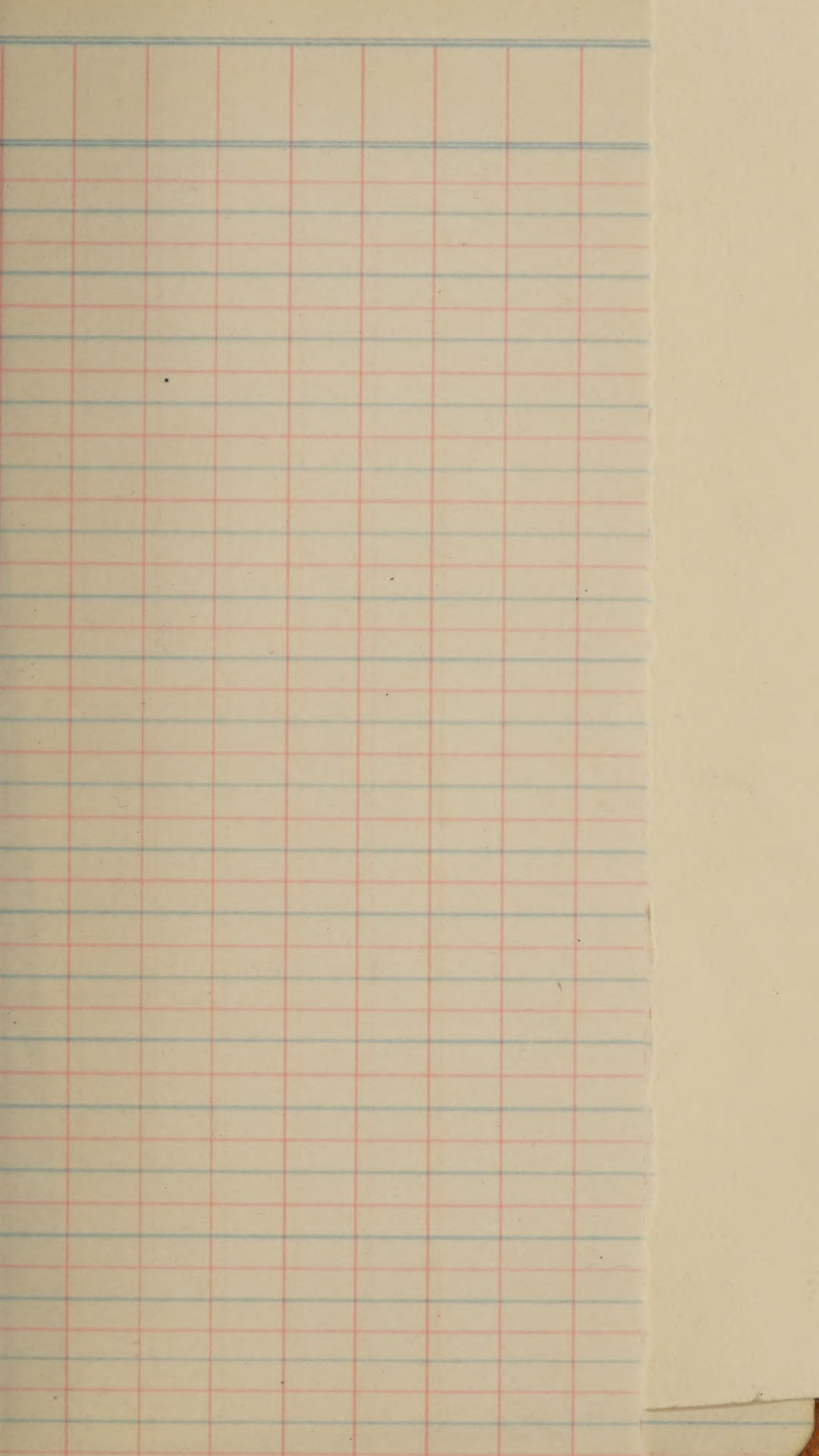
Color	Long	wide	thick	No. of seed	Shatter	Shape
	2-2 ¹ / ₄				L	C
Brown	45-55	9-10	6-7	2-3	L	
	1 ¹ / ₂ -1 ³ / ₄				L	T
	1 ¹ / ₂ -2				L	T
	1 ¹ / ₂ -1 ³ / ₄			2-3	L	T
					L	T
	2-2 ¹ / ₄			2-3	L	T

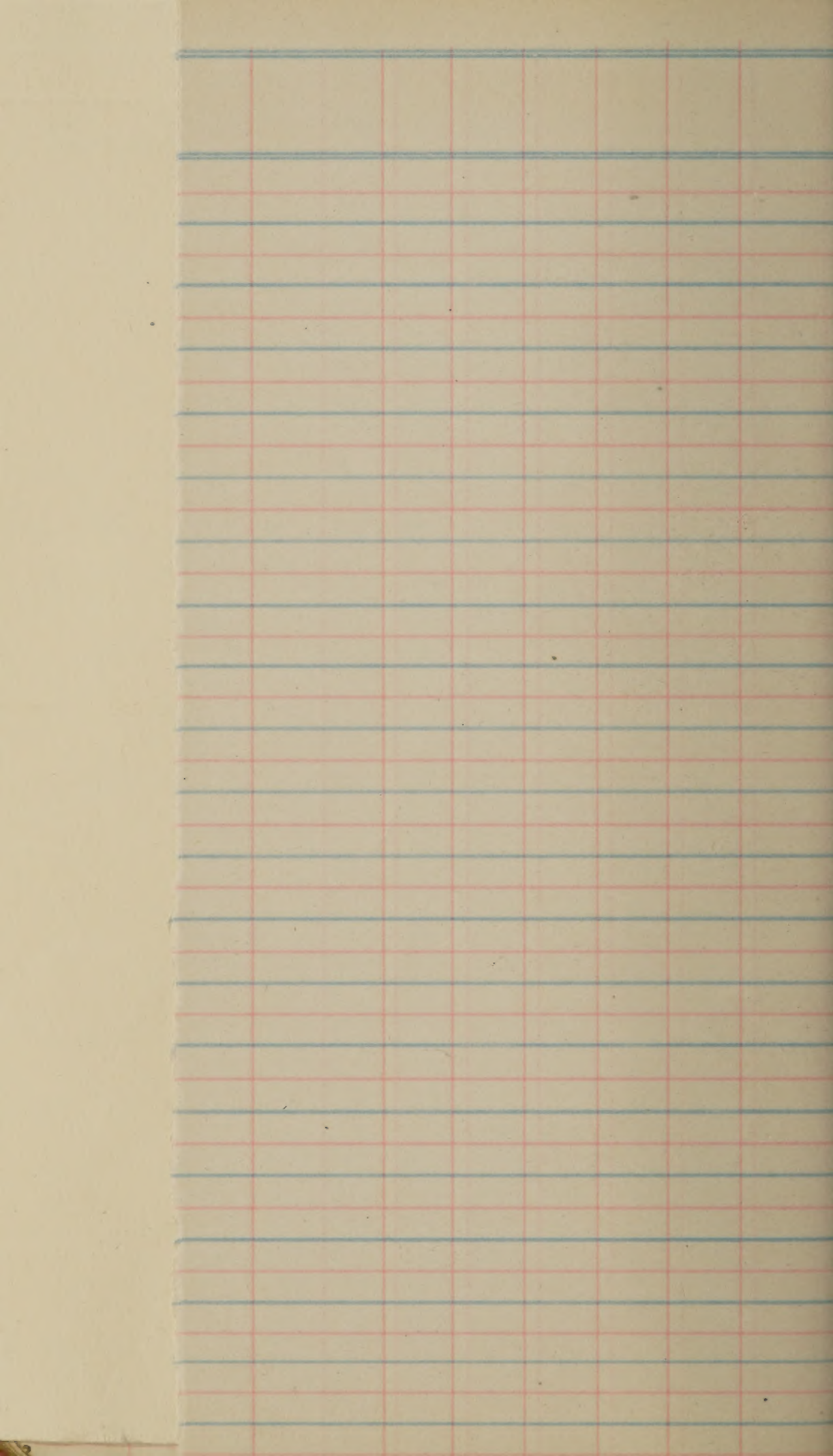
Variety

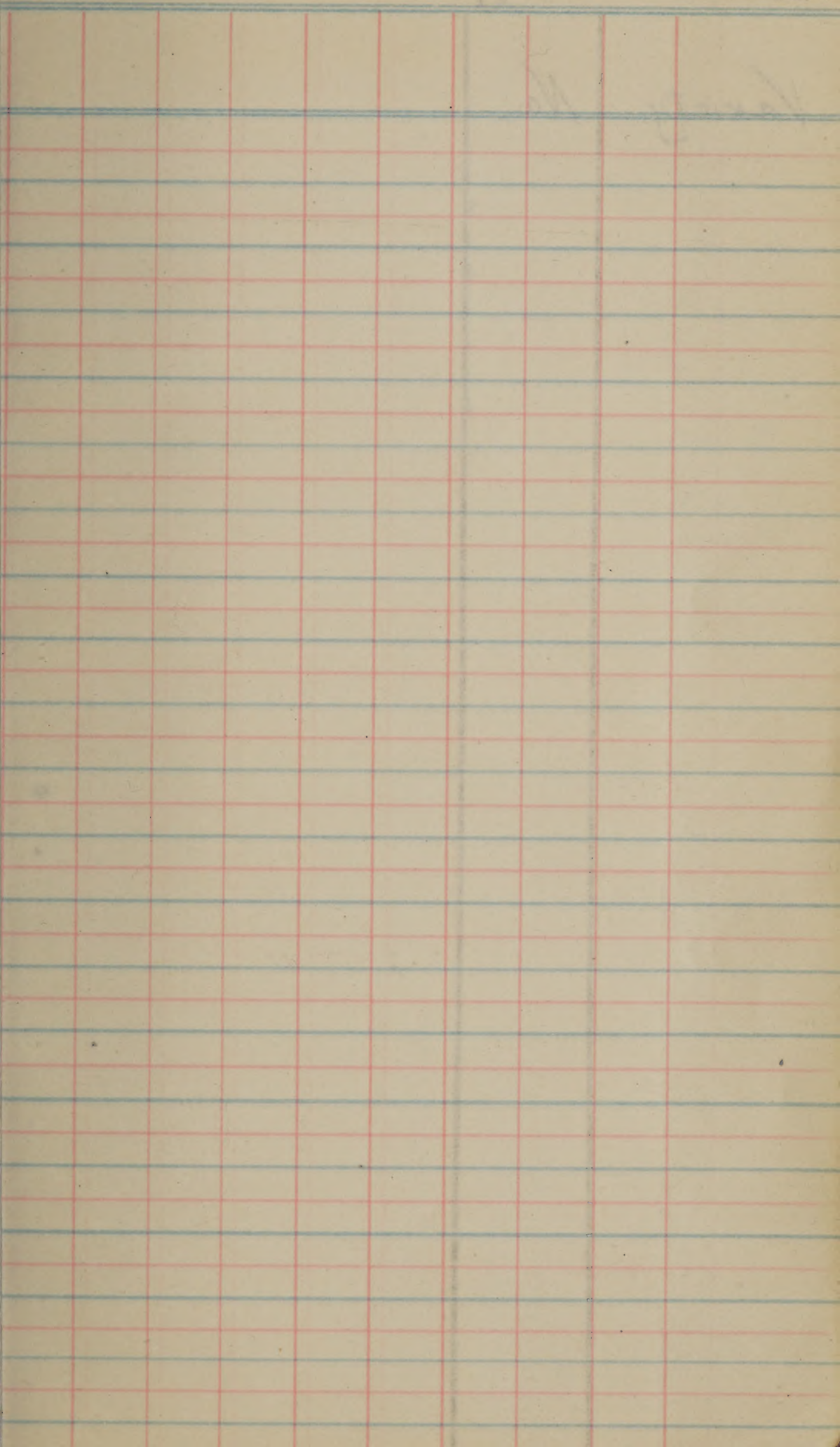
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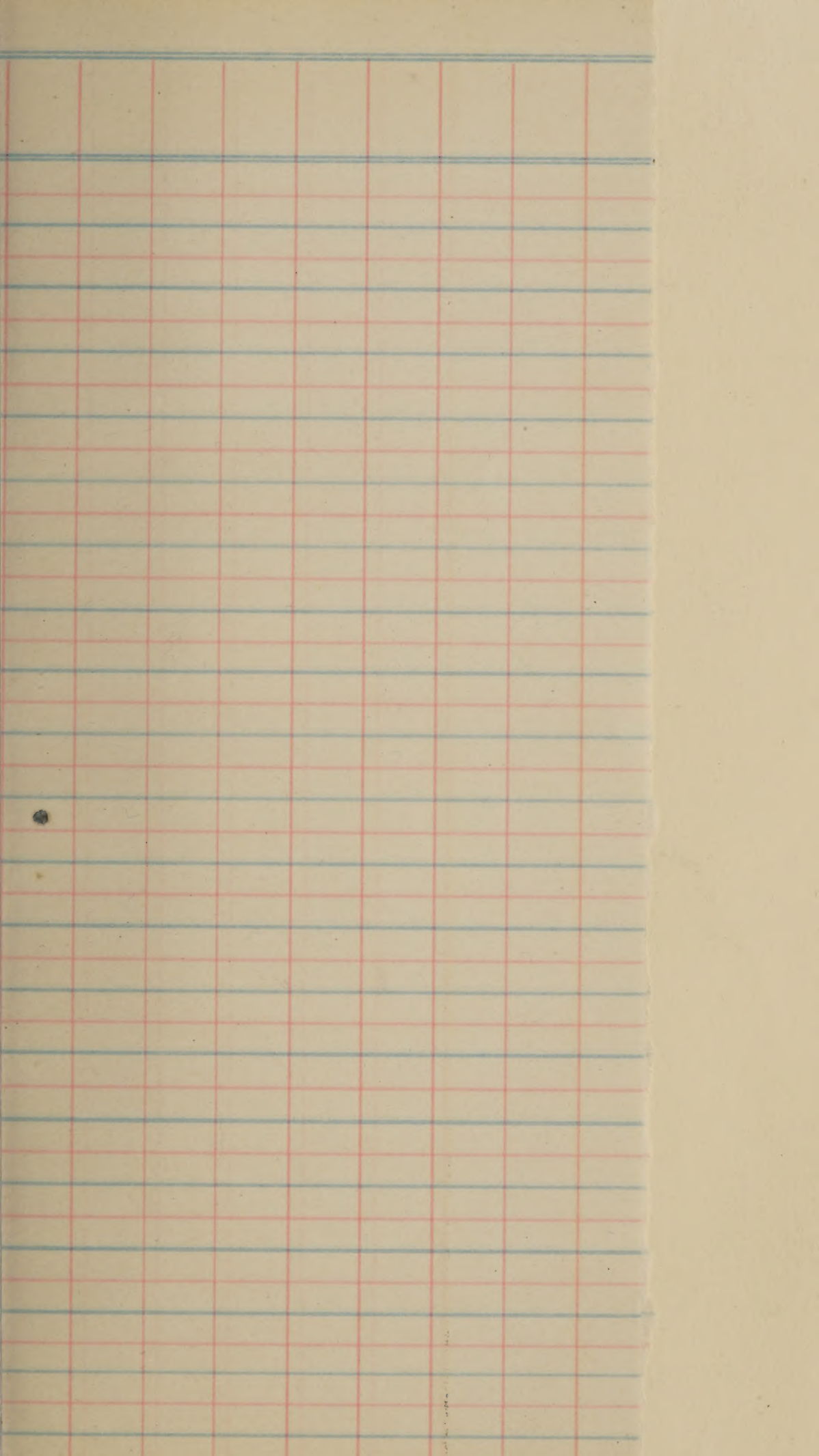


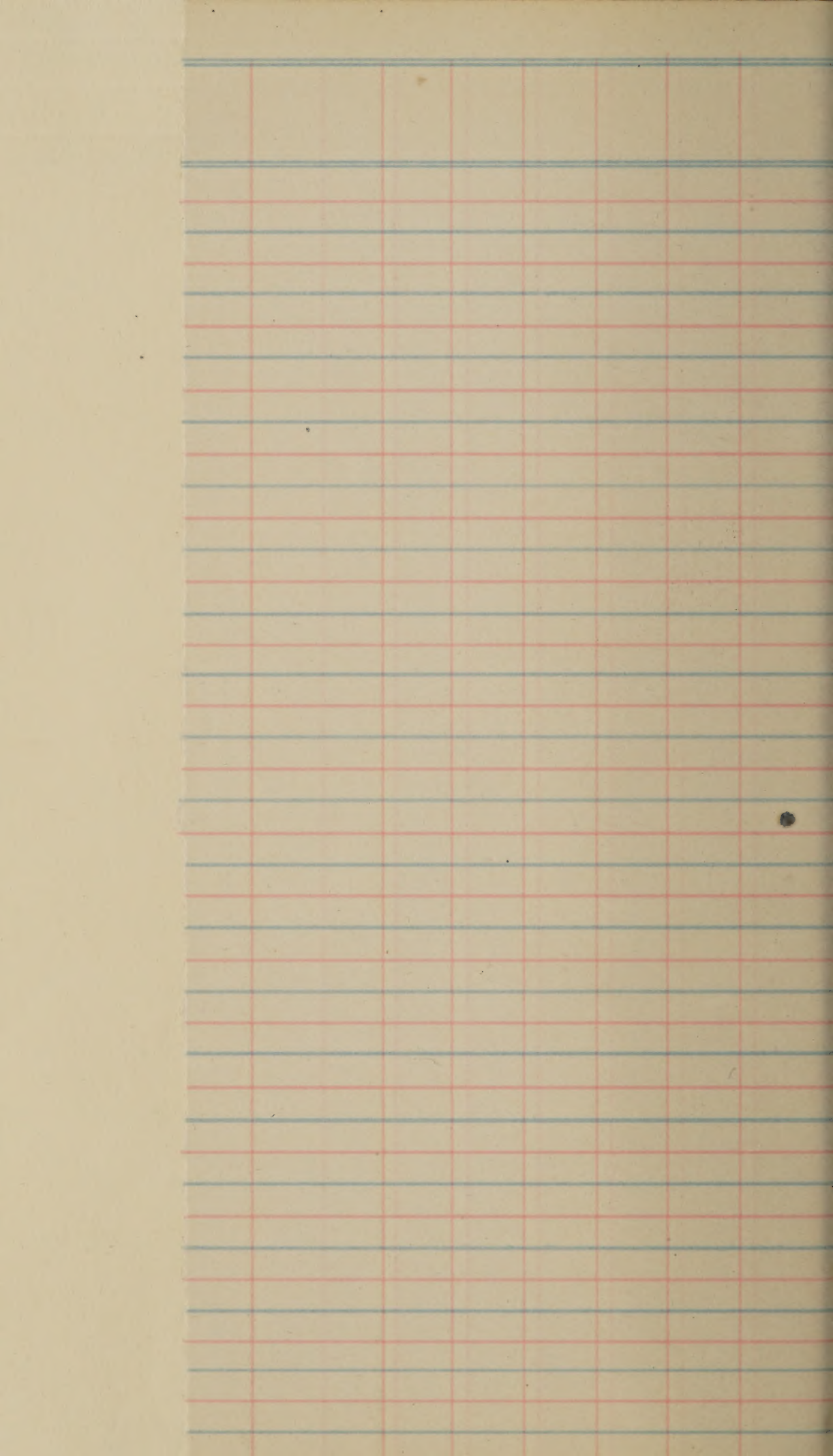


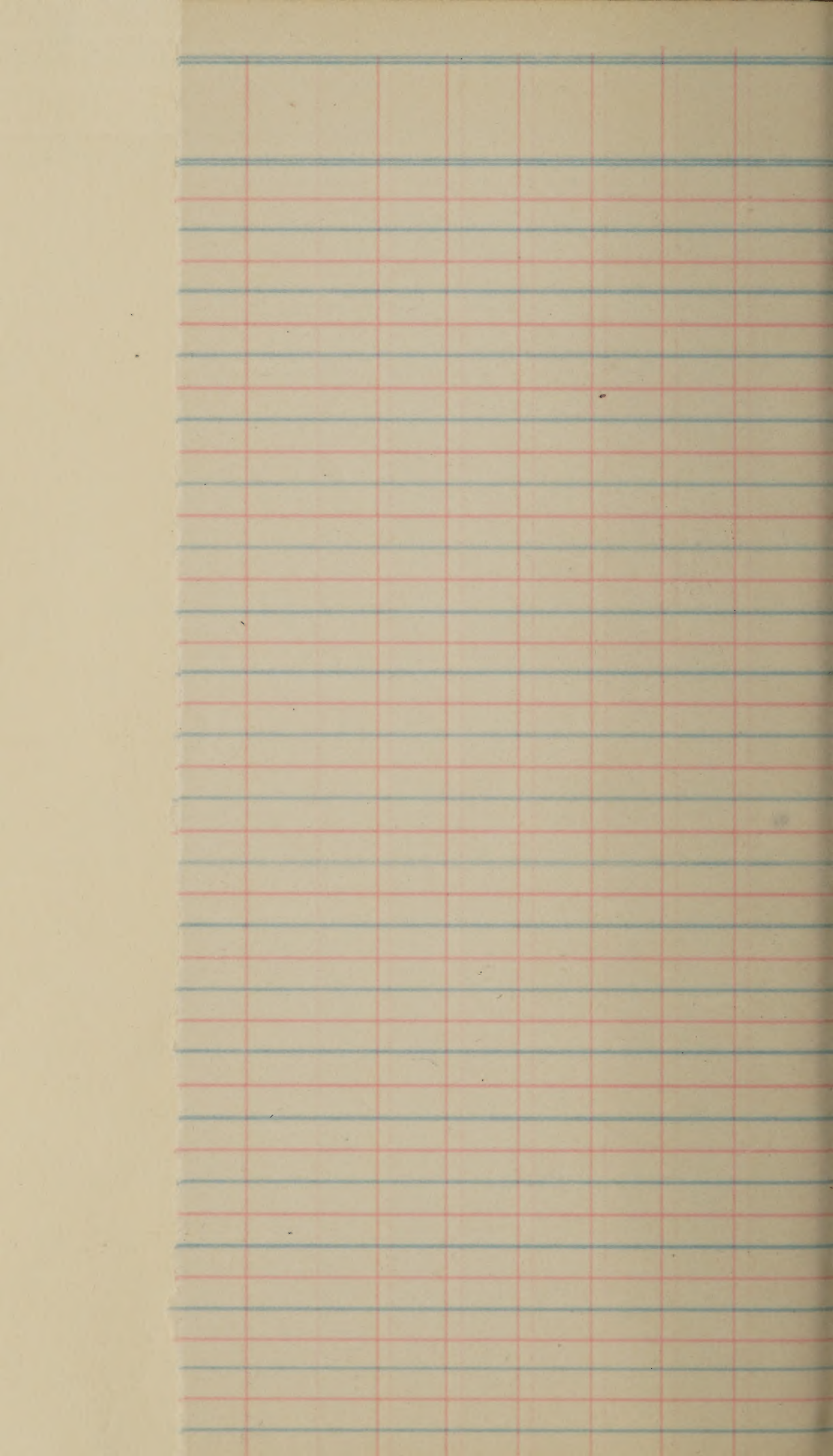


Variety

No.







Variety	No	Date Intro- duced	Source
Virco ✓	22874	1908	Tokio. Japan.
Virginia ✓	19186D	1907	Pure field selection from Morae, Arl. Farm.
Virginia Yellow			Same as Mammoth Yellow
Virginia Brown	03743		Same as Virginia
Very Dwarf Brown ✓	0821		Same as German
Vermont Medium Green	03596		Same as Guelph

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502

[illegible]

This image shows a single sheet of white paper with horizontal blue ruling lines and two vertical red margin lines on each side. The paper is oriented vertically. In the top right corner, the number "90" is printed. The paper appears to be part of a bound volume, as some of the edges of other pages are visible underneath. There is no handwriting or other markings on the page.

Variety	No	Date introduced	Source
White	6396 (17271)		Same as Haberlandt.
Wilson	19183	1906	Neuchwang, Manchuria
Wilson-Five ✓	19183-5	1912	Pure selection from Wilson at Arl. Farm.
Wisconsin Black	0852, 03576 03698		
Wis. Early Black	02689, 03207 03761, 03838		Selection from Early Black developed by Wis. Exp. Sta.
Wing's No. 1	03750		
Wis. Pedigreed No. 2.	03664		
Wilson Early	03720		
Wing's Pedigreed Sable	03520		
Wing's Royal	02752		
Wis. Early Brown.	03661		
Wis. Early Green	03659		
Wea ✓	30600	1911	Introduced from Shuangcheng, Manchuria
Watson Black			
White Eyebrow	03582 30745		
Wilson-Early Black	03886		
Wisconsin Pedigreed Black	02104		
Wilson Black	03737, 03818 03821.		
Wing's Wilson	03216		
Wrinkled Select	02475		

Height in.	Habit	Branch	Leaves persist	Mature Days	Flowers		Pubescence	
					Color	Season Days	Color	Amt.
	E.	Ma	no.	120	PW	50-55	G.T	
	E	Ma	no	120	W		G	
	E	Ma	Yes	100	P	30-35	T	
						</		

Seed

Color	long mm.	wide mm.	thick mm.	Color hilum	Color germ	Iodine value oil
Black	7-9	6-7	4-5	bl.	Y.G.	
Black	7-8	5-6	3-4	bl.	Y	
Black						
Black	8-9	5-6	4-5	bl.	Y	
Black						
Black						
Black						
straw yellow	7-8	6-7	5-6	dark olive	Y	
Black						
Black						
Black						
Black						
Black						

Seed

Per cent oil	Per cent protein	No. of seed to bu	Wt. of bu.
			16s.
18.4	37.8	144,000	
15.2		301,400	
17.7		185,200	
19.6	37.2	194,880	

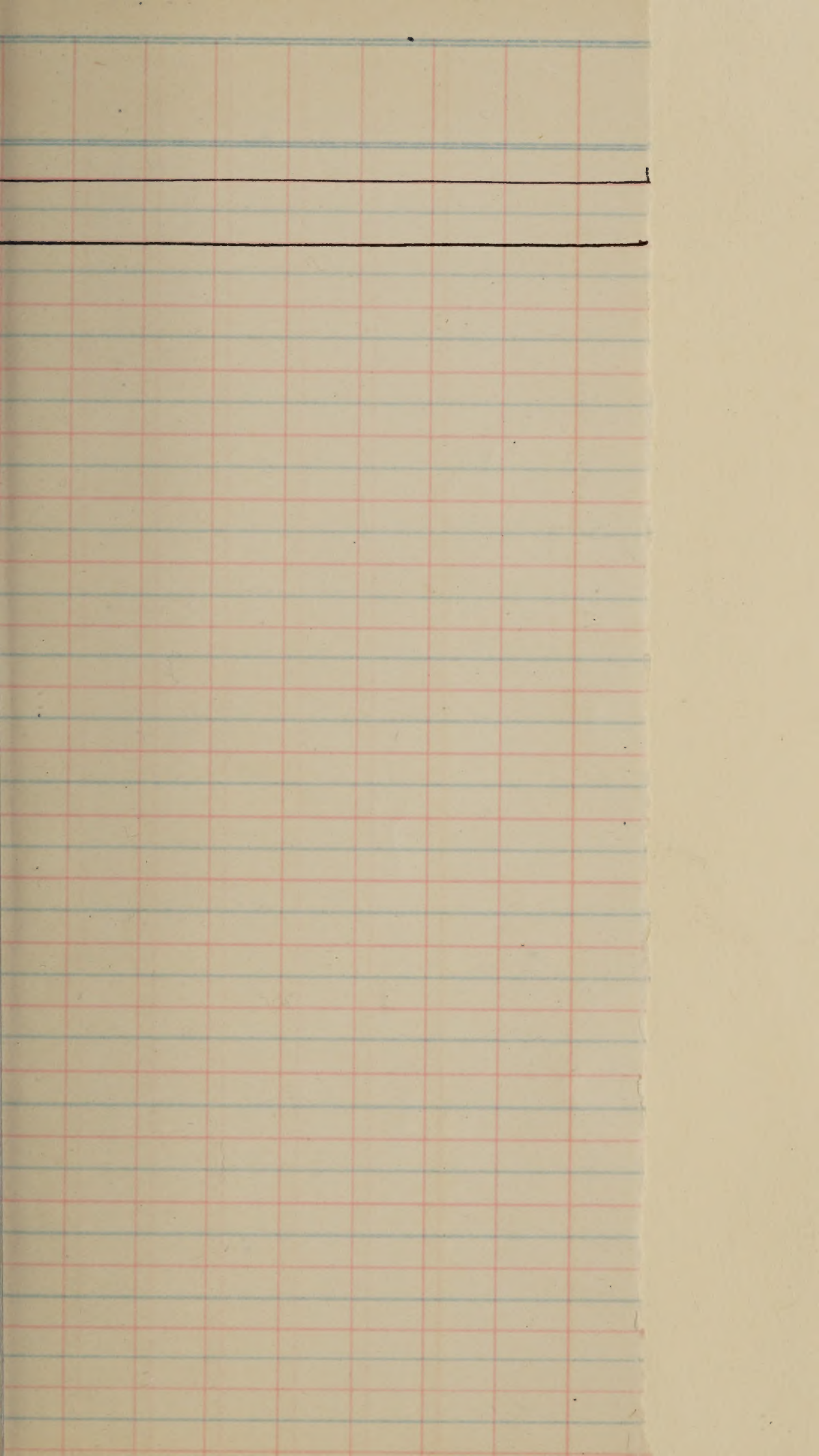
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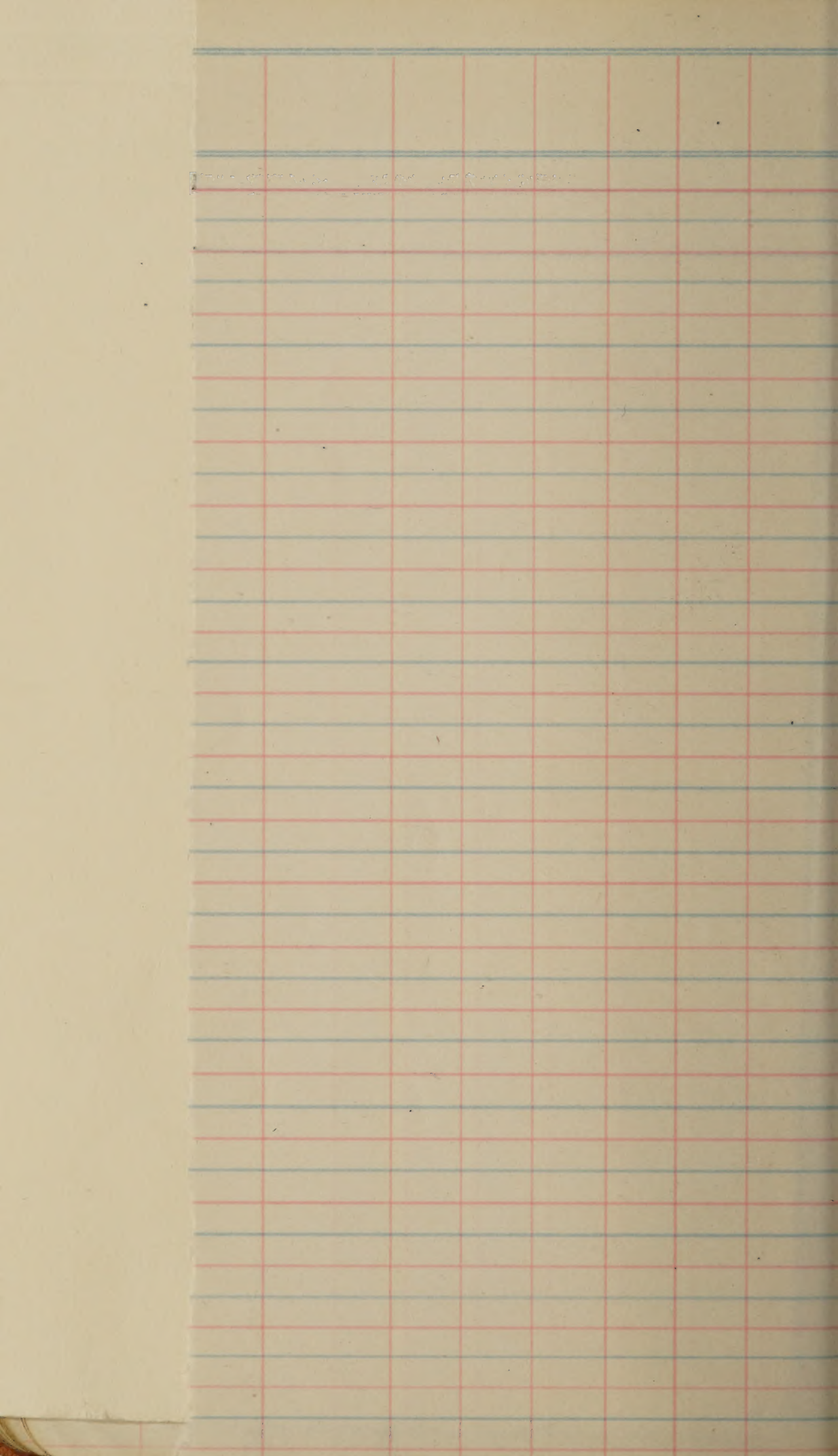
Color	Long mm.	wide mm.	thick mm.	No. of seed	Shatter	Shape
brown	40-50	8-9	5	2-3	L	G
gray	50-55	8-9	4-5	2-3	L	C
brown	40-50	8-10	6-7	2-3	L	
gray	40-45	7-8	6-7	2-3	L	T

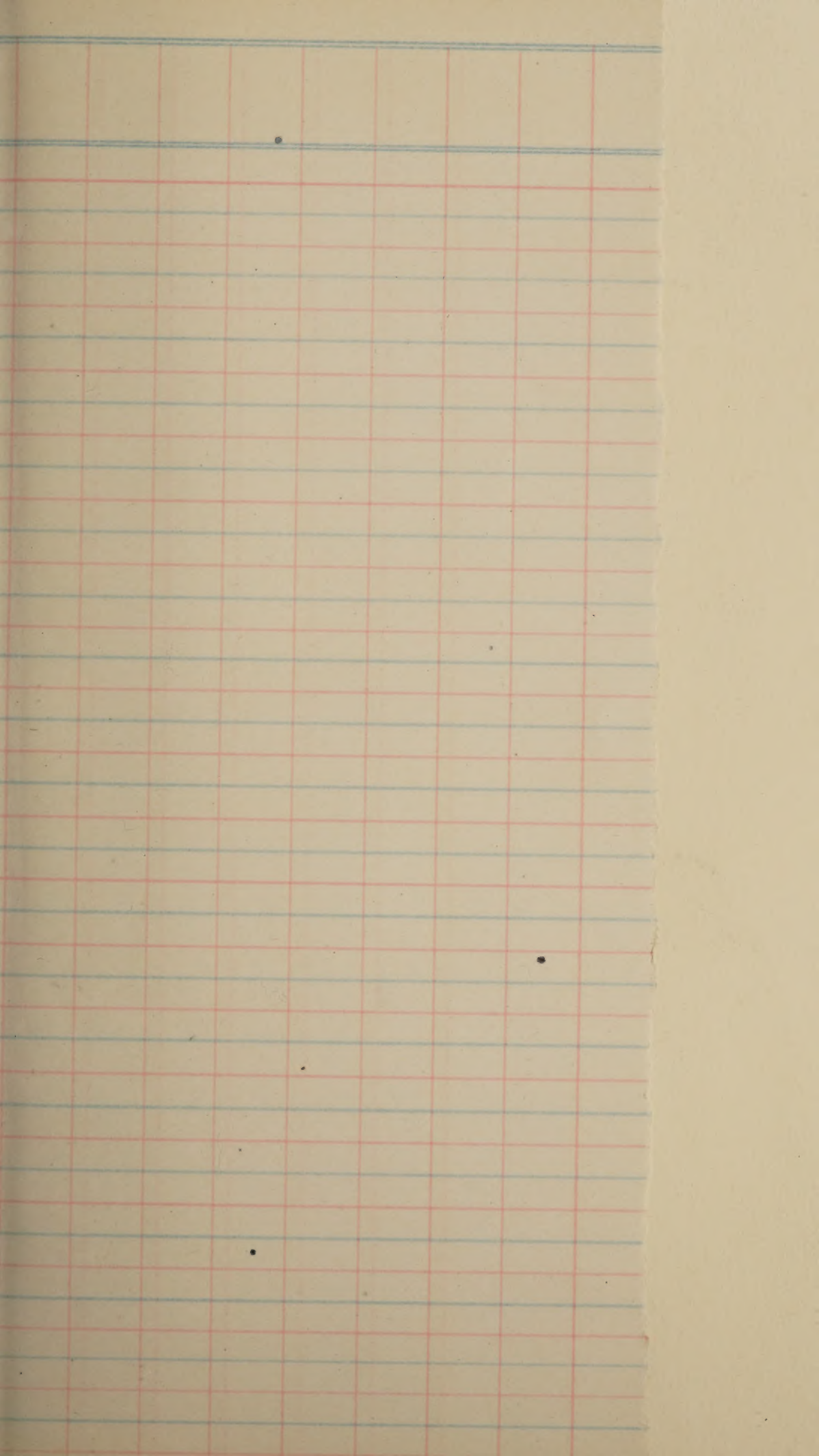
Variety

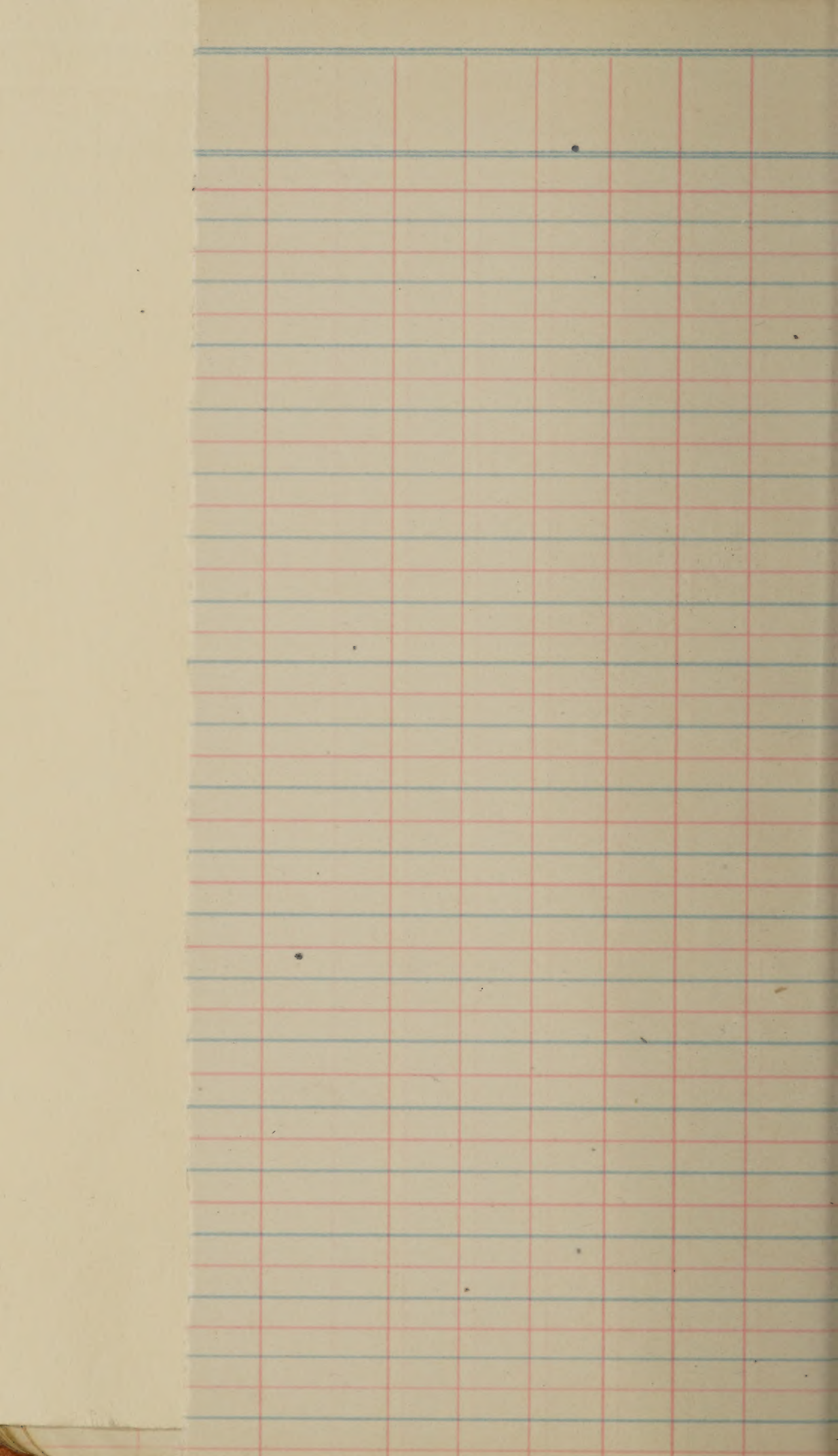
No.

Variety	No.	









2000

[illegible]

				Flowers		Pubescence	
Height in	Habit	Branch	Leaves persist	Mature Das.	Color Season Das.	Color	Amt
				104	W.P	T	
				145	W	G	145
				110	T	T	

Seed

[illegible]

Seed

[illegible]

2902

[illegible]

Pod

Cal

Pod

Pod

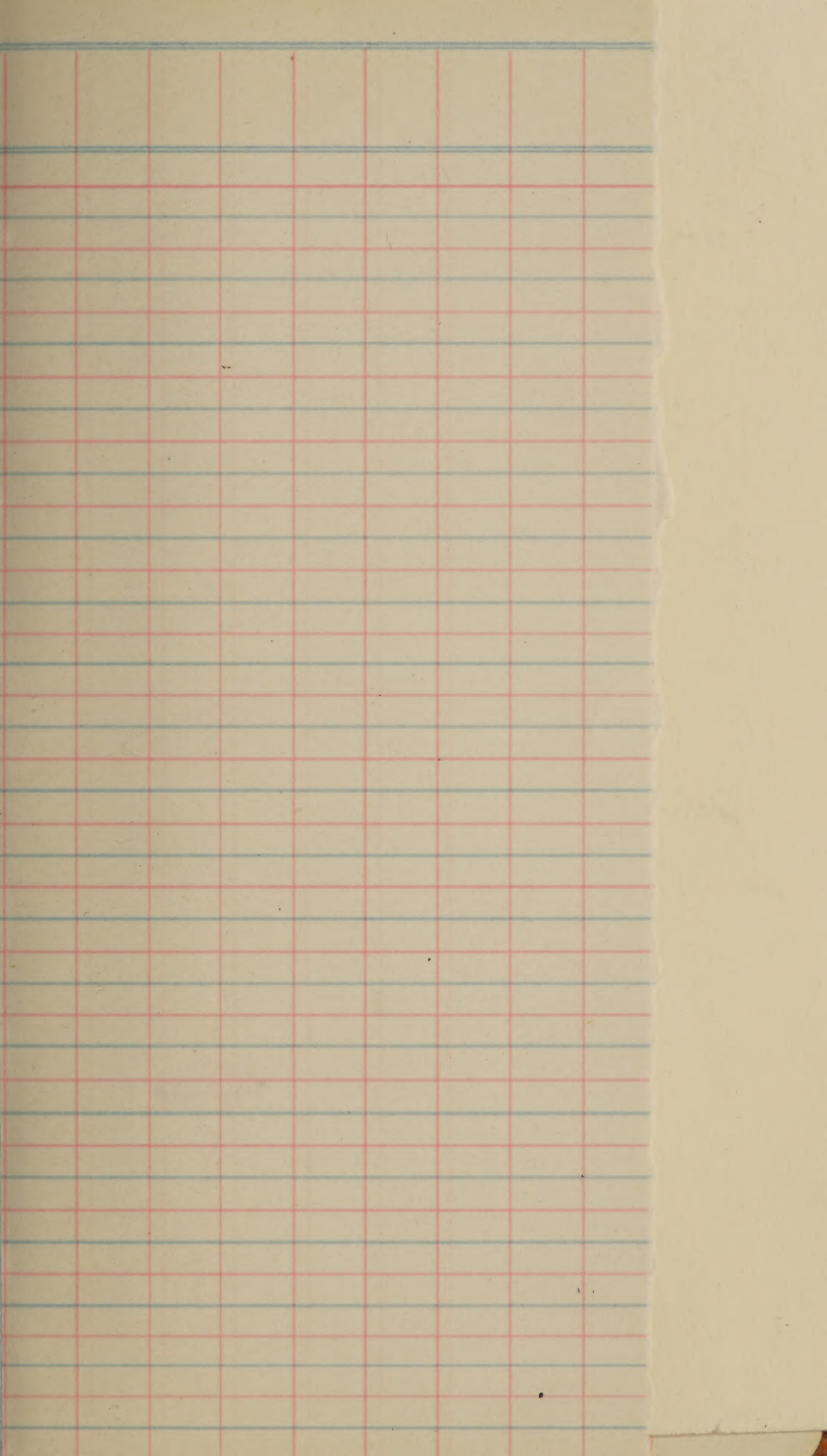
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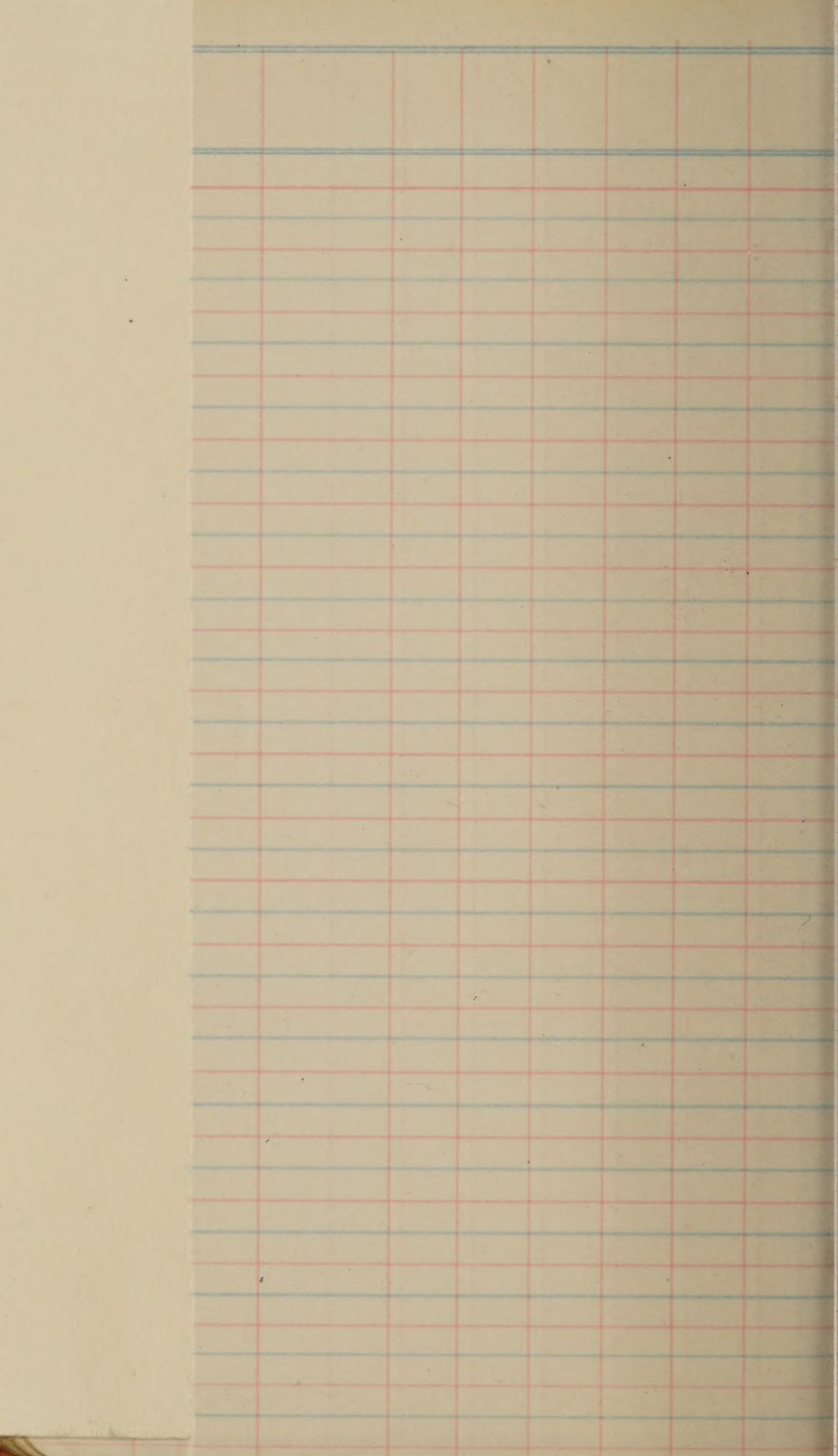
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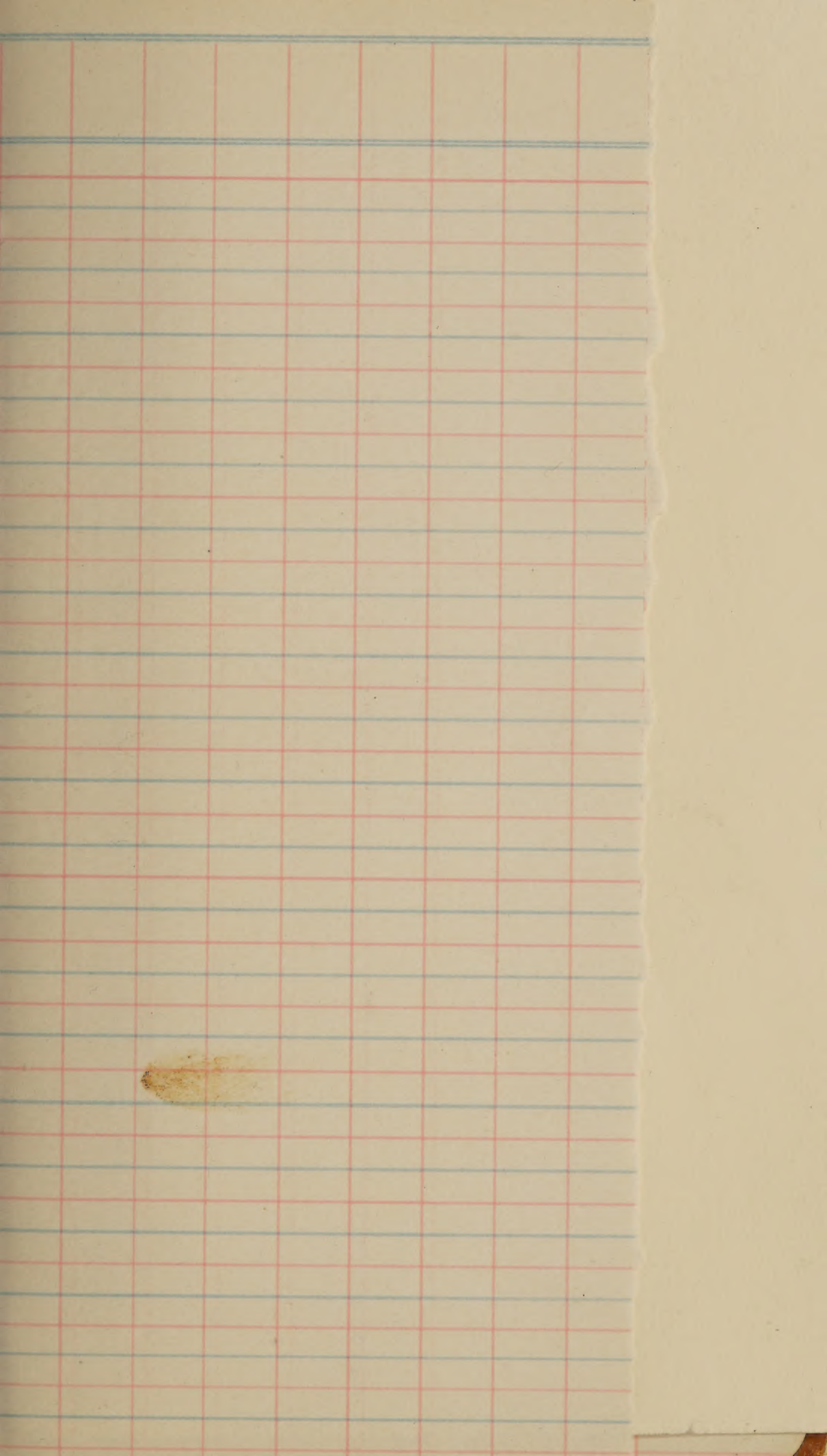
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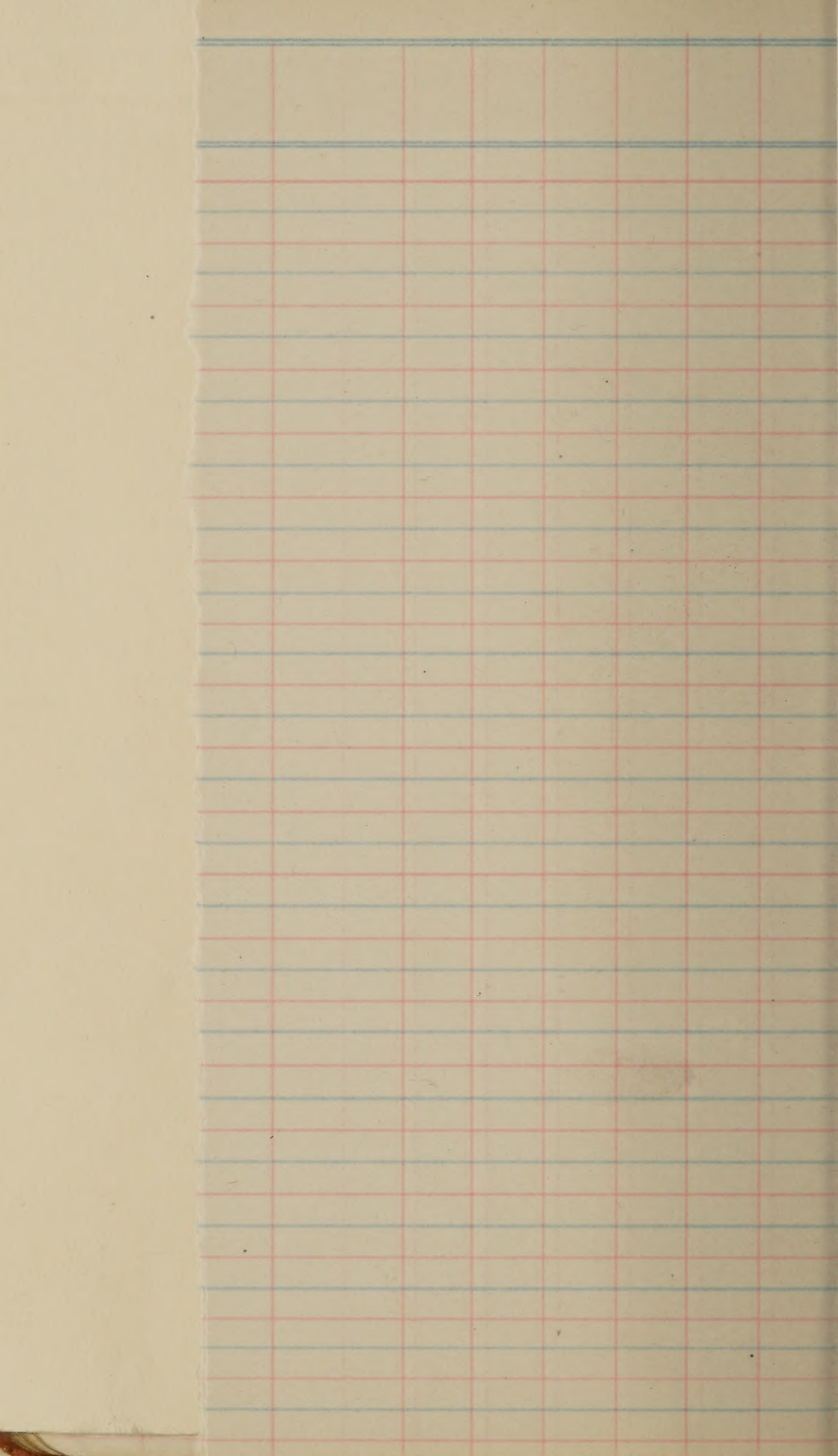
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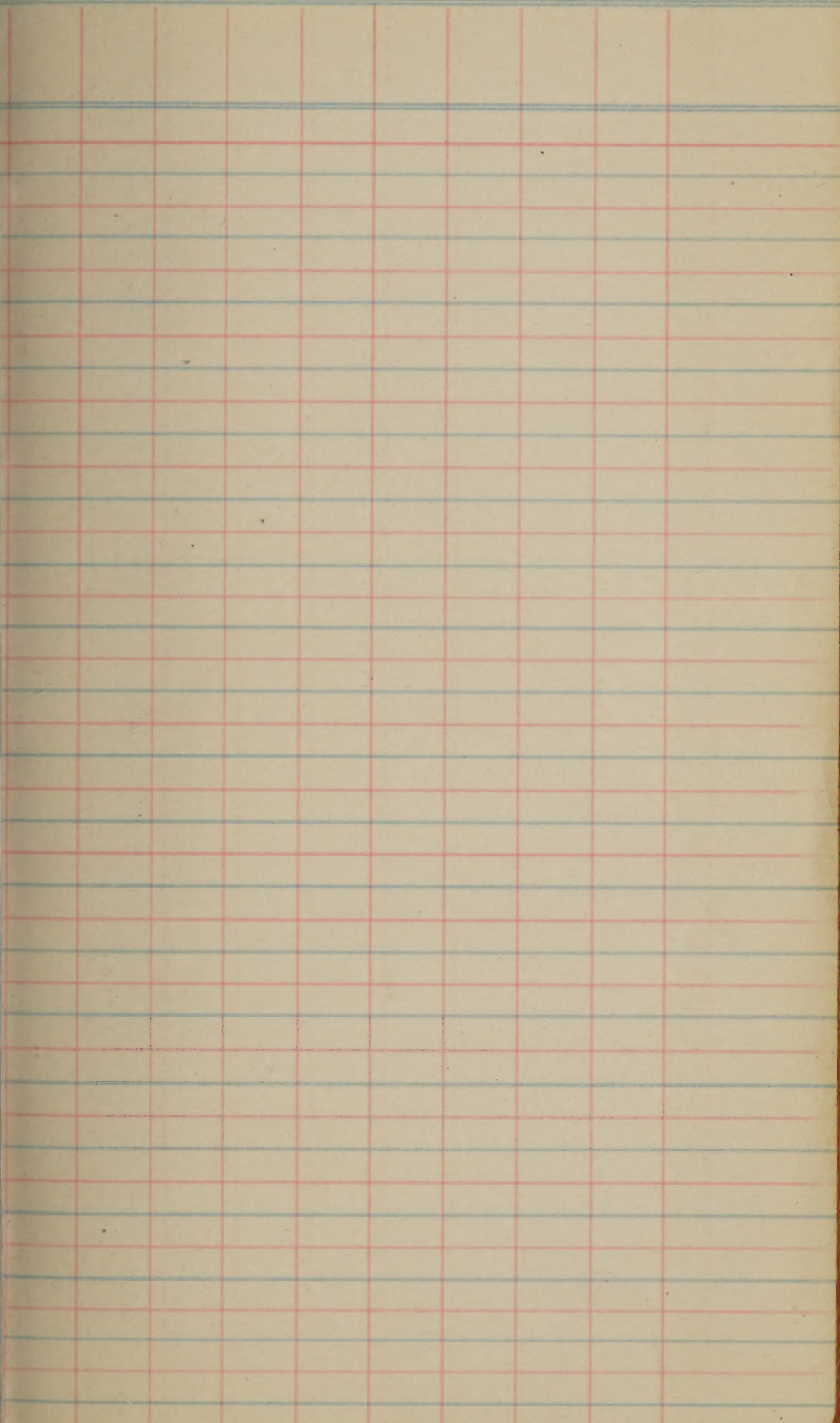
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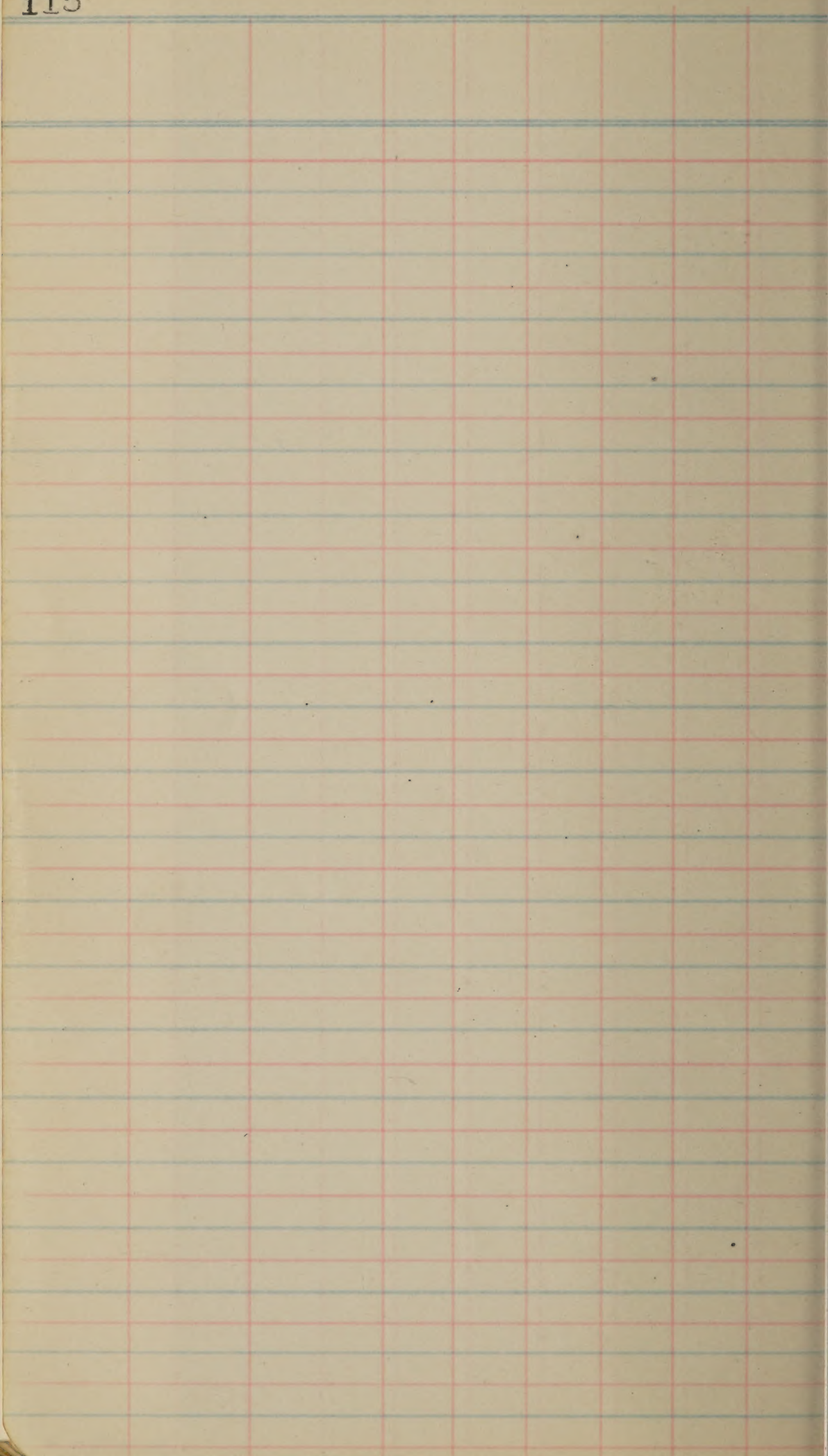


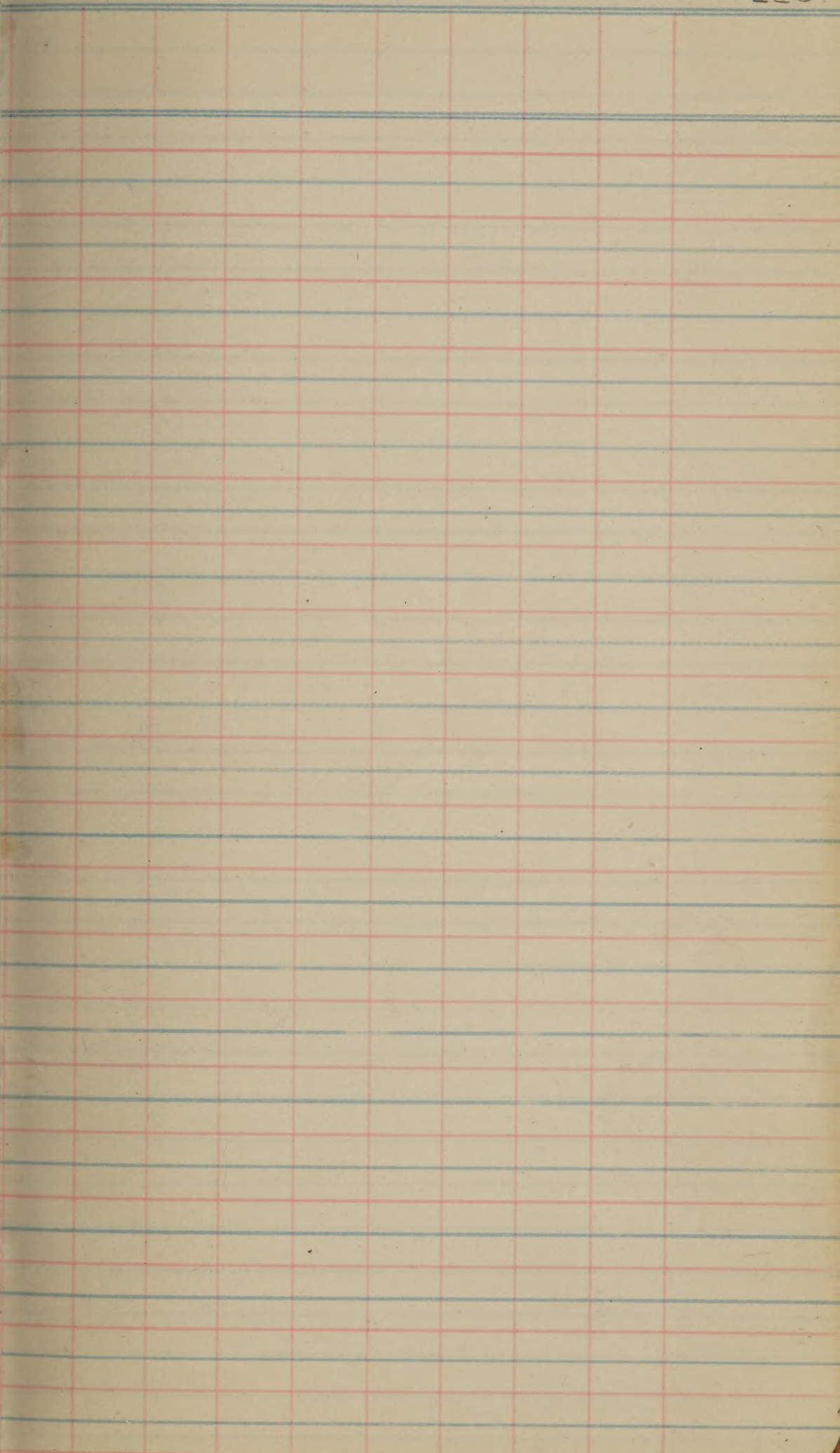


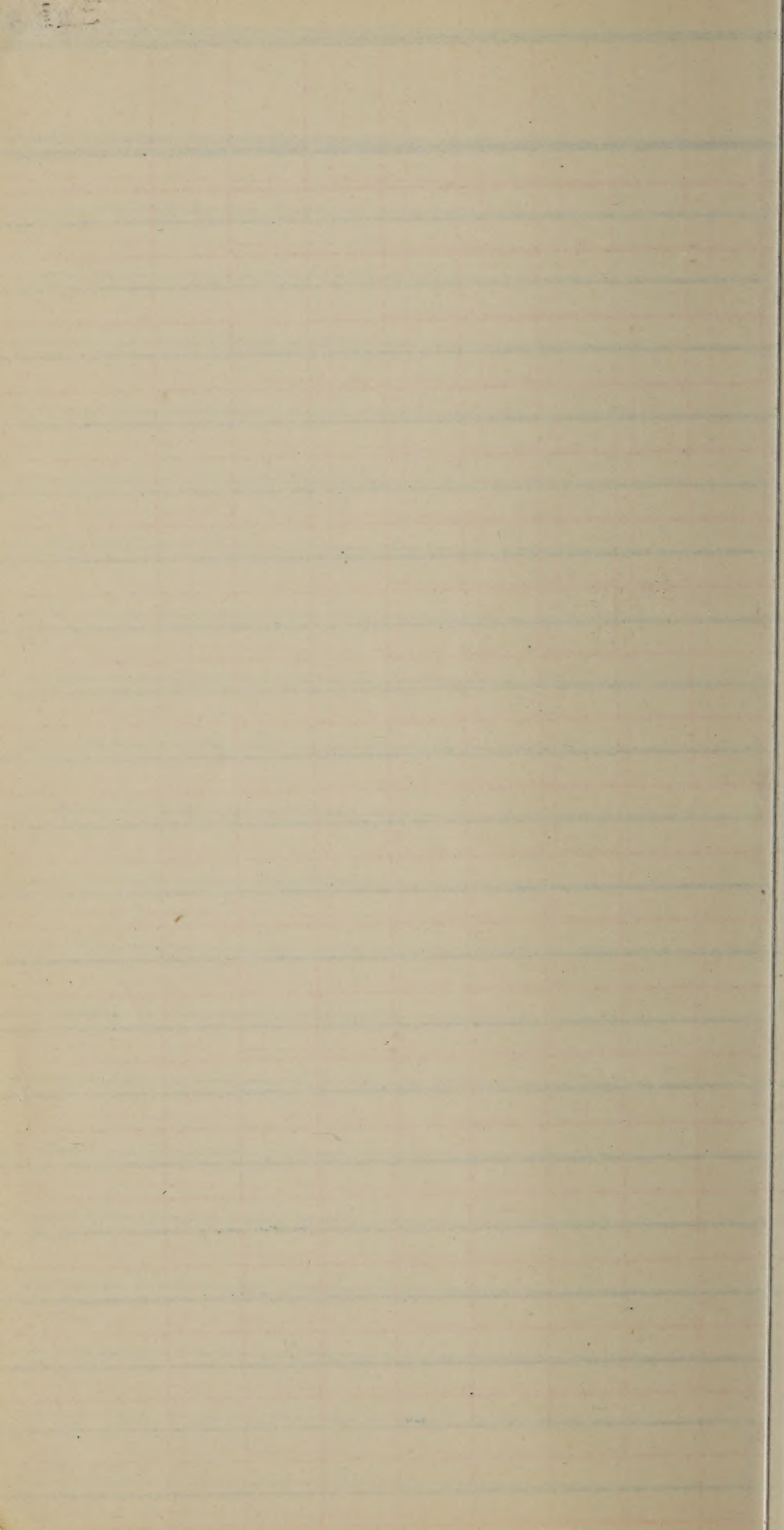


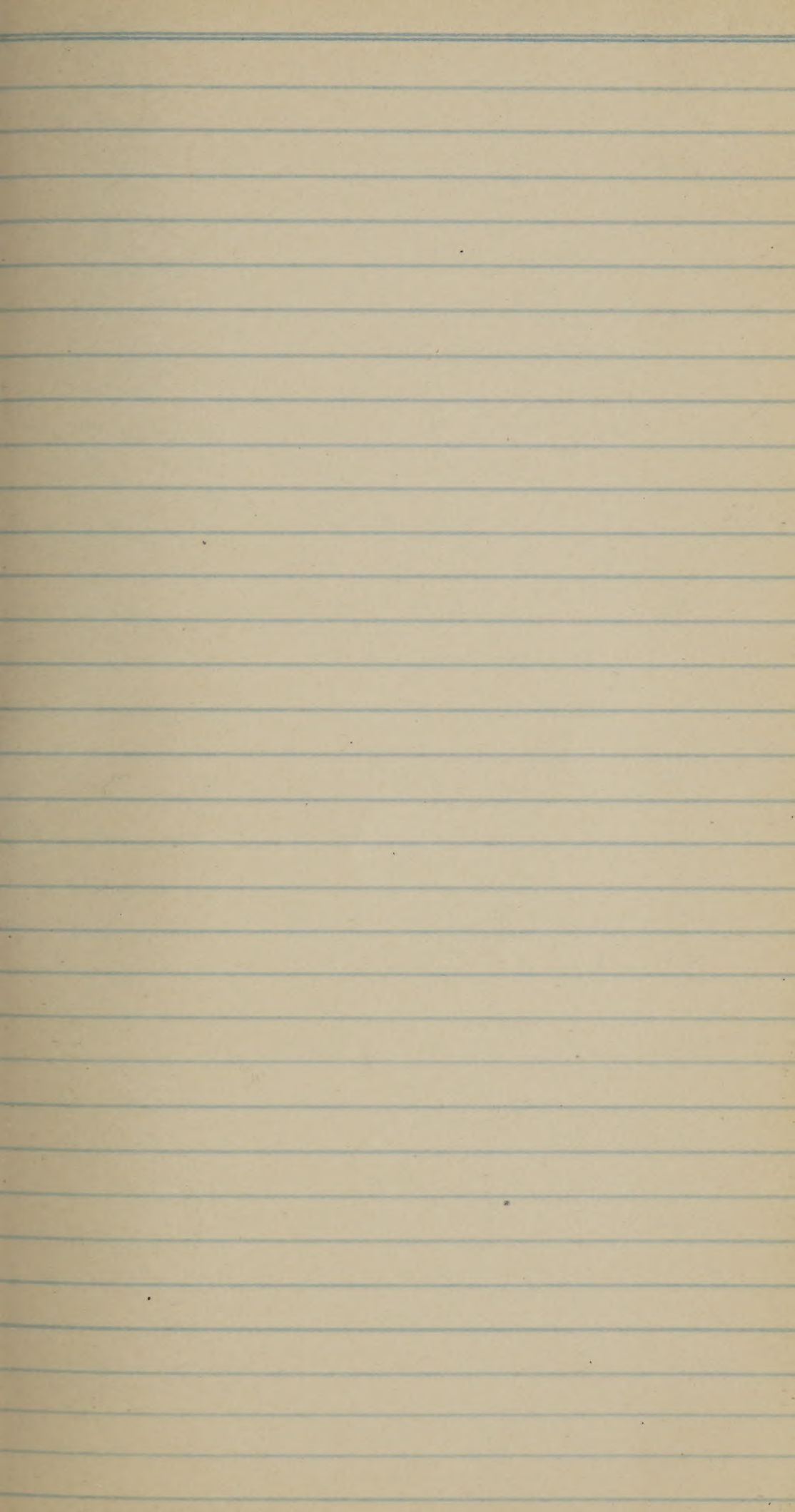


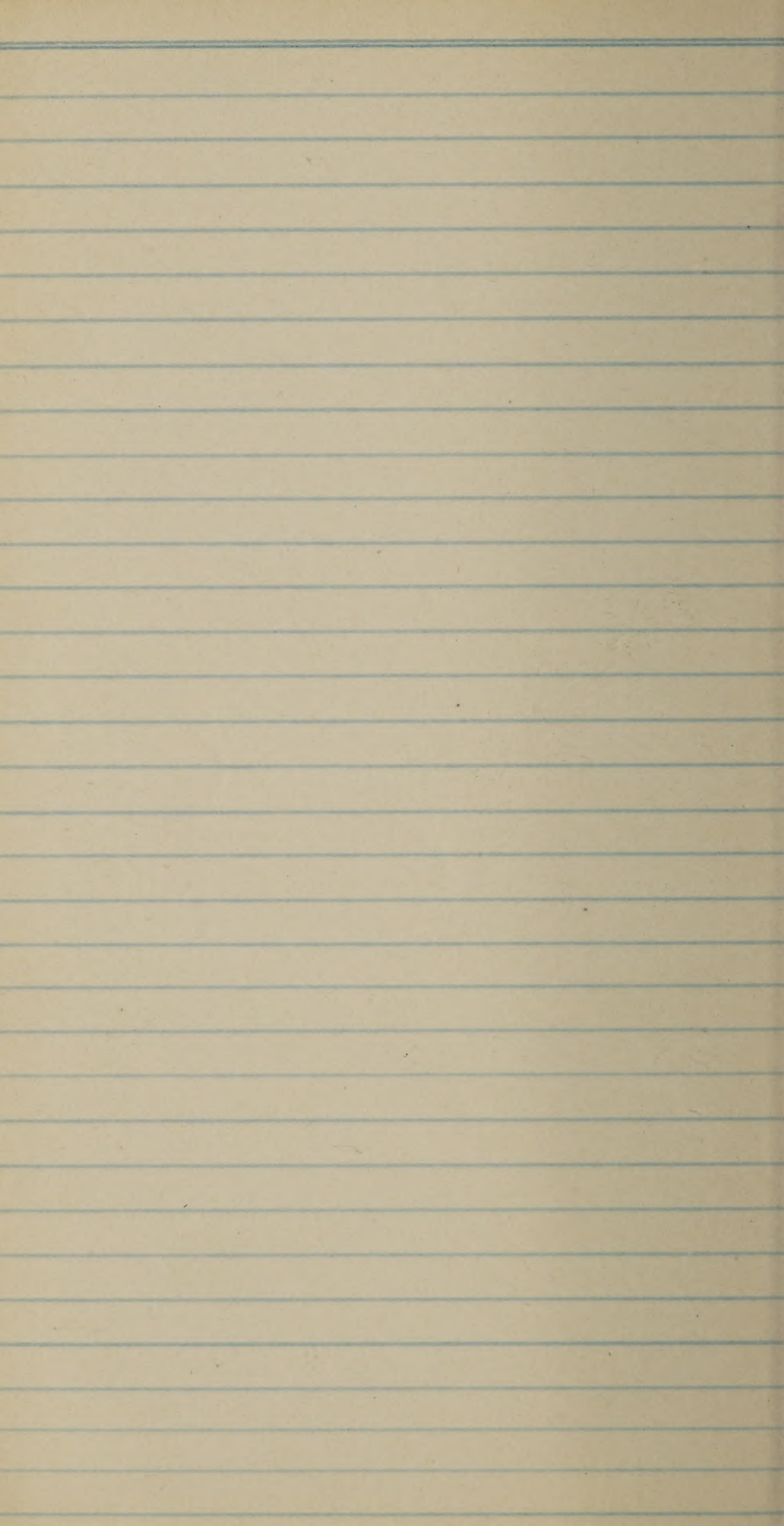












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